**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK**

NATIONAL CREDIT UNION ADMINISTRATION BOARD, as Liquidating Agent of Southwest Corporate Federal Credit Union, and Members United Corporate Federal Credit Union,	)	Case Nos. 13 Civ. 6705 (DLC)
	)	13 Civ. 6719 (DLC)
Plaintiff,	)	13 Civ. 6721 (DLC)
	)	13 Civ. 6726 (DLC)
v.	)	13 Civ. 6727 (DLC)
	)	13 Civ. 6731 (DLC)
MORGAN STANLEY & CO., INC. and MORGAN STANLEY CAPITAL I INC.,	)	13 Civ. 6736 (DLC)
Defendants.	)	
And other NCUA cases.	)	

**Expert Report of Charles D. Cowan, Ph.D. Regarding the
Selection of Statistically Reliable Random Samples of Mortgage Loans**

April 4, 2014

I. Introduction

1. I was retained by Korein Tillery LLC and Kellogg, Huber, Hansen, Todd, Evans & Figel, P.L.L.C., counsel for the National Credit Union Administration Board ("NCUA"), to design a methodology for selecting statistically reliable random samples of loans from the Supporting Loan Groups ("SLGs") backing 82 unique Certificates purchased by NCUA from 75 securitizations of residential mortgage loans (the "Securitizations") at issue in these Actions.[1]

2. Statistical sampling is a common and scientifically accepted methodology used for research and other purposes, including legal proceedings. Courts routinely rely on statistical sampling to establish liability and damages. Moreover, statistical sampling, as a scientific methodology, has been generally accepted in the scientific community for over one hundred years. There is a wide body of peer-reviewed literature in the field of statistics that discusses the utility of using statistical sampling to estimate results in a particular population based on results from a sample of that population. There have been countless applications of statistical sampling in academia, government, and business.

3. Statistical sampling has been used to value and assess portfolios of loans by the government and businesses alike. For example, federal regulators often examine a sample of loans held by financial institutions to determine whether the financial institution is in compliance with its statutory and regulatory requirements. Similarly, private businesses routinely use sampling to review and assess pools of mortgage loans, for example, to assess credit quality, compliance with regulatory requirements and other laws, and adherence to internal policies and procedures.

4. In order to obtain a statistically reliable sample of loans for each of the Securitizations at issue in these cases, I have chosen a random sample of 100 loans from the populations of loans in the SLGs for the 82 unique Certificates (the "Populations"). I understand

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[1] The Offerings are identified in Appendix 2.

that NCUA will obtain the loan files for the loans that are randomly selected in order to re-underwrite them.

5. This sample size of 100 loans is sufficiently large to draw conclusions about the Populations and specifically to make a scientifically reliable estimate of the number of Misrepresented Loans (*i.e.*, loans inconsistent with representations made in the offering documents) in each Population. Regardless of the number of loans in each Population, a sample size of 100 loans will yield results at a 95 percent confidence level with a maximum margin of error of +/- 10 percent. A 95 percent confidence level is standard in statistics and has been accepted by courts as scientifically valid in a number of similar actions. A margin of error of +/- 10 percent is sufficiently precise for the purpose for which sampling is being used in this case. In addition, prior to drawing the samples, I stratified the loans in each Population by Fair Isaac Corporation ("FICO") credit score, which will likely reduce the maximum margin of error below +/- 10 percent. An increase in sample size to reduce the margin of error further would not significantly improve the determination of whether the statements in the offering documents were false, and any such increase in sample size would yield diminishing returns. Likewise, use of additional stratification variables would not necessarily reduce the margin of error and could introduce other issues complicating the extrapolation of the sample to the Population.

6. Because of the possibility that NCUA will not be able to obtain certain loan files, which typically are in the possession of defendants, defendants' affiliates, or third parties, I also selected an additional 100 loans for each SLG. The goal is to re-underwrite the initial sample of 100 loans. However, the additional 100 loans will be available as substitutes for loans from the initial sample that are missing. The second set of 100 loans was ordered using a set of random numbers. As a result, the loans selected as substitutes for any missing loan files are preordained but randomly selected. A more detailed description of this process is given in the body of the Report.

7. The initial and backup 100-loan samples are representative of the Populations and unbiased. I have tested the representativeness of the proposed samples against the Populations on eleven key variables (or as many of those eleven as are available) from the loan tapes,[2] which allows me to confirm a high level of correspondence between the characteristics of the sampled loans and their respective Populations. Once the re-underwriting of the loan files for each sample is complete, I will be able to extrapolate from the samples to the Populations using established methods.

8. After extrapolation, the fact finder will be able to determine liability for any one Securitization with a known level of accuracy because of the computation of the confidence level and the margin of error. It also will be possible for the fact finder to determine liability for the combined set of Securitizations in any particular case with a much higher level of confidence.

II. Professional Qualifications and Compensation

9. I have over forty years of experience in statistical research and design. I received my Bachelor of Arts degree in Economics from the University of Michigan, my Master of Arts degree in Economics from the University of Michigan, and my doctorate in Mathematical Statistics from the George Washington University. I currently consult for numerous public and private sector entities on the design, implementation, and evaluation of research, and the synthesis of statistical and sampling techniques for measurement. My professional experience and academic tenure are included in my curriculum vitae, a true and correct copy of which is attached as Exhibit 1.

A. Professional Experience

10. I have designed some of the largest and most complex research programs incorporating sampling that were conducted by the federal government, including: the Post Enumeration Program conducted by the Bureau of the Census to evaluate the 1980 Decennial

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[2] Loan tapes are collections of data identifying each loan included in a securitization by its loan number and providing various characteristics of the loan. These tapes typically include the loan-to-value ratio, the borrower's FICO credit score, the property ZIP code, documentation type, and the borrower's occupancy status, among other characteristics.

Census, the Economic Cash Recovery valuations conducted by the Resolution Trust Corporation ("RTC") from 1990 to 1995, and many evaluation studies conducted for the Department of Justice, the Department of Defense, the Department of Housing and Urban Development ("HUD"), and the Department of Treasury.

11. I have also provided expert advice to corporations and government agencies on the incorporation of complex research designs in demographic and economic measurement problems. My most significant matters include the following:

- Development of procedures used by the RTC and the Federal Deposit Insurance Corporation ("FDIC") for determining the value of all assets held by the RTC/FDIC taken from failed banks and savings and loan associations. This involved sampling and reviewing 10,000 loans per quarter to determine their value. Results from the extrapolation of the samples were used in quarterly reports to Congress on the loss to the American taxpayer that resulted from these failures. The RTC and FDIC also used these estimates of anticipated recoveries on assets for financial reporting. As a result of this work, the Government Accountability Office awarded these agencies their first clean opinions from its annual review of agency financial statements.

- Application of econometric and biometric procedures for measuring credit risk in large portfolios of loans for the FDIC, Regions Bank, Option One, and Providian. Frequently these model-based techniques are combined with the results of sample reviews to improve the reliability of evaluations of portfolios. These models are used for a variety of purposes within financial institutions, such as the pricing of loans, the long-term management of customers, decision-making on workouts for delinquent loans, and the establishment of economic and regulatory reserves.

- Model fitting and development of projection methods for the FDIC and PricewaterhouseCoopers to measure the likelihood of loss or errors in recording loans held by banks or put up for auction; measurement of the likelihood of fraud and/or noncompliance in systems, including bank holding companies, trading activities for brokers, and systems for compliance with health department and judicial requirements. These model-based techniques are combined with the results of sample reviews to improve the reliability of evaluations of portfolios.

- Establishment of audit and sampling methods to determine the completeness and accuracy of reporting and record systems. These procedures are used to both expand and streamline bank examinations for safety and soundness and also compliance measurement for the FDIC. These sampling techniques are applied in the audit of federal agencies concerned with regulatory review of operations and systems, and related systems for banks, regulatory agencies, and law firms.

- Evaluation of sample surveys conducted for the Department of Defense, the National Institutes of Health, the Department of Agriculture, the Department of Education, and the Department of the Treasury, each in response to Congressional inquiries on the validity of results in reports to Congress on activities in these agencies.

- Development of procedures used by the Bureau of the Census to apportion the population for revenue sharing purposes and to estimate the undercount in the Decennial Census of Population and Housing. These procedures include application of sample-based, capture-recapture methods to measure the size of the undercount in the decennial census, use of network sampling as an alternative measure for population size, and measurement of the accuracy of data collected in the Census.

- Development of statistical methods to quantify the size of populations, including: nomadic populations for the Census of Somalia; the under-count and over-count in the Census of Egypt; the number of missing children in Chicago, Illinois; and, the number of homeless persons and families needing services in several large cities with transient populations.

12. From January 2002 to the present, I have been the Managing Partner of Analytic Focus, LLC. My firm provides expert witness and consulting services in litigation. My firm also has several non-litigation projects with the federal government, and has assisted banks in evaluating the value and stability of their loan portfolios. A list of cases in which I have given expert testimony during the previous 4 years is attached as Exhibit 2. My most significant matters include the following:

- I served as a statistical sampling expert in *MBIA Insurance Corp. v. Countrywide Home Loans, Inc., et al.*, Index No. 602825/2008 (N.Y. Sup. Ct. Aug. 24, 2009), a case that recently settled in the Supreme Court of the State of New York and which involved allegations of material misrepresentations and omissions regarding loan characteristics that are similar to the allegations in these matters. In *MBIA*, I constructed for Plaintiff MBIA statistically valid random samples of mortgage loans from over 368,000 loans underlying fifteen securitizations. In 2010, the court accepted the sampling and extrapolation methodology that I formulated, and the samples have been used as the basis for re-underwriting review and to estimate damages.

- I served as a statistical sampling expert in *In re Washington Mutual Mortgage Backed Securities Litigation*, No. C09-37 MJP (W.D. Wash. July 23, 2012), which was also a residential mortgage backed security ("RMBS") action in federal court in the Western District of Washington. In *Washington Mutual*, I constructed a statistically valid random sample of mortgage loans from 13,425 mortgage loans underlying six offerings. In July 2012, the court accepted the sampling and extrapolation methodology that I proposed on behalf of Plaintiffs Policemen's Annuity and Benefit Fund of the City of Chicago and Boilermakers National

Annuity Trust. The samples have been used as the basis for re-underwriting review, and my extrapolation was admitted as evidence of liability. This case has been resolved.

- I currently serve as a statistical sampling expert in sixteen RMBS actions brought by the Federal Housing Finance Agency ("*FHFA*") pending in the United States District Court of the Southern District of New York[3] concerning allegations of material misrepresentations and omissions regarding loan characteristics similar to the allegations in these matters. In *FHFA*, I developed a statistically valid random sampling methodology to draw statistically reliable samples from approximately 1,172,876 loans underlying 449 securitizations. The court accepted my sampling methodology and the samples I proposed as the basis of the re-underwriting review and extrapolation analyses.

- I currently serve as a statistical sampling expert in 10 RMBS actions with similar claims brought by MassMutual pending in federal court in the District of Massachusetts.[4] In these actions, I developed a statistically valid random sampling methodology to draw statistically reliable samples from approximately 278,689 loans underlying 121 Certificates.

- I currently serve as a statistical sampling expert in five RMBS actions coordinated in an MDL for discovery purposes.[5] I have also developed statistically valid random sampling methodologies to draw statistically reliable samples in these cases.

- I currently serve as a statistical sampling expert in *Federal Home Loan Bank of Chicago v. Banc of America Securities LLC*, Case No. 10-2-36526-5 SEA (King Cnty. (Wash.) Super. Ct.) concerning allegations of material misrepresentations and omissions regarding loan characteristics similar to the allegations in these matters. In these actions, I developed a statistically valid random sampling methodology to draw statistically reliable samples from approximately 33,860 loans underlying five offerings.

- From 2003 to 2005, for Regions Bank, I took a sample of small business loans and evaluated the safety ratings that Regions Bank had assigned to these loans. Regions Bank relied on my work to pass an examination and review conducted by the Federal Reserve and the FDIC, in their capacity as regulators of the bank.

- For Option One, a mortgage originator, I evaluated in 2001 to 2002 their portfolio of loans and developed models to forecast prepay and default rates for residential mortgages.

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[3] The case numbers are: 11 Civ. 5201 (DLC), 11 Civ. 6188 (DLC), 11 Civ. 6189 (DLC), 11 Civ. 6190 (DLC), 11 Civ. 6192 (DLC), 11 Civ. 6193 (DLC), 11 Civ. 6195 (DLC), 11 Civ. 6196 (DLC), 11 Civ. 6198 (DLC), 11 Civ. 6200 (DLC), 11 Civ. 6201 (DLC), 11 Civ. 6202 (DLC), 11 Civ. 6203 (DLC), 11 Civ. 6739 (DLC), 11 Civ. 7010 (DLC), and 11 Civ. 7048 (DLC).

[4] The case numbers are: 11-cv-30039-MAP, 11-cv-30044-MAP, 11-cv-30047-MAP, 11-cv-30048-MAP, 11-cv-30094-MAP, 11-cv-30126-MAP, 11-cv-30127-MAP, 11-cv-30141-MAP, 11-cv-30125-MAP, and 11-cv-30285-MAP.

[5] These cases are *Allstate Insurance Company v. Countrywide Financial Corporation*, 11-cv-005236-MRP; *Massachusetts Mutual Life Insurance Company v. Countrywide Financial Corporation*, 11-cv-10414-MRP; *Minnesota Life Insurance Company v. Countrywide Financial Corporation*, 12-cv-06149-MRP; *National Integrity Life Insurance Company v. Countrywide Financial Corporation*, 11-cv-09889-MRP; and *Federal Deposit Insurance Corporation as Receiver for United Western Bank, F.S.B.*, 11-cv-10400-MRP. These cases have been consolidated as part of *In re Countrywide Financial Corp. Mortgage-Backed Securities Litigation*, 2:11-ML-2265-MRP-(MANx) (C.D. Cal.).

- For the FDIC, from 2002 to 2006, I selected samples of depositor records from a sample of banks that had been closed between 1990 and 2002, and conducted an analysis of the amount of time and effort required to close a very large bank and the problems associated with paying off depositors. This work was used by the FDIC to streamline the processes it used to close banks and to pay depositors.

- For the Office of Personnel Management ("OPM"), from 2004 to the present, I redesigned the sampling system used by the OPM and KPMG for the audit of the Civil Service Retirement System and the Federal Employee Retirement System. Each year, I am responsible for sampling records from four funding systems used by OPM to determine the safety and soundness of these funds. My reports also are used to fulfill the requirements of the Improper Payments Act.

- In 2010 and 2011, I developed a methodology for the National Institutes of Health ("NIH") for the construction of sampling frames of physicians, health workers, and others involved in health-related fields. My report, published by the NIH, serves as guidance to all 23 NIH agencies on methods for sample frame construction, sampling, and estimation for any research conducted by the NIH.

- From 2006 to the present, I have maintained a staff responsible for all quality control on litigation support work done by outside vendors hired by the Department of Justice in civil cases. This staff designs and implements sampling plans that are used to conduct the quality control assessments.

- For the Small Business Administration, I conducted a 2005 study involving a sample of banks used to determine the manner in which banks evaluate the creditworthiness of small businesses. The data from my research has been used by the Federal Reserve in its review of credit availability to small businesses and by the House Subcommittee on Banking.

- I have been retained as a statistics expert witness or consultant in connection with litigation involving antitrust claims, deceptive sales practices, environmental toxic tort, insurance and reinsurance, trademark and trade dress confusion, and class actions on behalf of defendants and plaintiffs. I have relied on statistical sampling in cases as disparate as wrongful death cases and antitrust cases.

13. From November 1999 to December 2001, I was a Director at the Analysis Research Planning Corporation ("ARPC"), an economic and management consulting firm that provides statistical, econometric, economic and financial analysis, strategic advice and expert testimony to a wide variety of clients facing uncertainty, potential litigation, and other disputes. My work involved the development of new forecasting models for present and future claims in asbestos cases, and the analysis of alleged diminution of value in toxic tort cases.

14. From January 1997 to November 1999, I was a Director at Pricewaterhouse Coopers, LLP responsible for managing the financial research group in the Survey Research Center ("SRC") and in the Data Mining Group. Research efforts in the SRC were in support of business-to-business consumer research and for the federal government to research regulatory impact. The Data Mining Group provided fraud detection services for financial services organizations, optimization research for businesses concerned with supply chain issues in production, and analysis of delivery systems for a number of major delivery companies.

15. From 1991 to 1996, I was the Chief Statistician for the FDIC and the RTC. During this time, I was responsible for all research on valuation of properties and assets taken in by the FDIC and RTC in the banking crisis of the 1980's and 1990's. I supported research concerning fraud, optimization of contracts with servicing companies, and consumer perceptions of their interactions with banks and savings and loans. I designed the sampling processes used for routine bank examinations, the sampling processes for banks under consideration for closure, and sampling processes for bank resolutions where the bank was closed and sold to an acquiring bank. I prepared and jointly presented results on the FDIC's consumer research to Congress, specifically the House Banking Committee, in hearings regarding how consumers perceive what they are told regarding retail transactions in banks.

16. During this time, I also served on a number of independent review committees for different federal agencies to evaluate the quality of research conducted or proposed by the National Institutes of Health, the Department of Health and Human Services, the Department of Justice, the Department of Treasury, and the Department of Agriculture. These committees were formed specifically to determine whether research presented to the federal government could support conclusions drawn and to consider whether research proposed in grant applications would be adequate to study the topic in question.

17. From 1989 to 1991, I was the Chief Statistician for the Opinion Research Corporation (the "ORC"). At the ORC, I designed samples and analytic methods by which financial institutions could incorporate external information in aid of their efforts to increase deposits and marketing of non-FDIC-insured products. I also designed the sampling and estimation procedures used by the United States Postal Service to measure operational efficiency and consumer satisfaction for all post offices in the United States.

18. From 1986 through 1989, I was the first Chief Statistician for the National Center for Education Statistics ("NCES"), an agency within the Department of Education. As the Chief Statistician, I was responsible for the design of all surveys and research conducted by NCES, for reports to Congress on the state of education in the U.S. and around the world, and for staff development in research methods. In particular, under my guidance, NCES was one of the first federal statistical agencies to publish standards for operations and research. These standards are still mandatory for NCES staff and for all contractors working with the NCES.

19. I also held a variety of positions at the U.S. Bureau of the Census, including Chief of the Survey Design Branch, where I was responsible for the technical aspects of all research conducted on the evaluation of surveys and the 1980 Decennial Census. I also designed research studies on the validity of surveys conducted by the Census Bureau and experiments to measure response validity. I helped a number of countries develop evaluation protocols for their economic and demographic research programs.

B. Experience in Academia

20. I teach graduate and undergraduate courses in sampling theory, survey methods, statistics, and computer methods for analysis. I am currently an Adjunct Full Professor in the Department of Biostatistics in the School of Public Health at the University of Alabama in Birmingham.

21. I also served as an Associate Professor of Statistics at George Washington University from 1993 to 1998, and served as a Visiting Research Professor at the Survey Research Laboratory of the University of Illinois from 1983 to 1989.

C. Publications

22. I have co-authored two books: one on evaluation of survey and census methods and one on econometric measures related to the welfare of the U.S. economy. I also have written numerous articles on statistical methods, sampling, rare and elusive population research, and optimization techniques. A listing of these publications is included at pages 4 to 7 of my curriculum vitae, attached as Exhibit 1.

23. A number of these publications pertain to the use of statistical sampling and/or financial analysis in connection with lending institutions and loans. *See* Adrian M. Cowan & Charles D. Cowan, *Default Correlation: An Empirical Investigation of a Subprime Lender*, J. Banking & Fin. (Mar. 2004); Charles D. Cowan & Adrian M. Cowan, *A Survey Based Assessment of Financial Institution Use of Credit Scoring for Small Business Lending* (U.S. Small Bus. Admin., Office of Advocacy Rep. No. 283, Nov. 2006); Adrian M. Cowan & Charles D. Cowan, *The Dynamics of Credit Quality and Implications for the Pricing of Small Business Loans*, 5 Int'l J. Banking & Fin. 31 (2008).

D. Professional Societies

24. I am a member of the following professional societies: (i) American Statistical Association ("ASA"); (ii) American Association for Public Opinion Research ("AAPOR"); and (iii) International Association of Assessing Officers. My positions on various professional committees are listed on page 3 of my curriculum vitae, attached as Exhibit 1.

25. I have held a number of positions with the ASA. From 1980 to 1981, I served as the Chair of the Committee on Privacy and Confidentiality; from 1989 to 1990, I served as the Program Chair of the Section on Survey Research Methods; and, from 1995 to 2000, I served as the ASA's

representative to the Research Industry Coalition. I also served as the President of the Research Industry Coalition from 1999 to 2000.

26. I have also held a number of positions with the AAPOR. From 1982 to 1989, I served as the Chair of the Conference Committee; from 1984 to 1985, I served as the Associate Secretary-Treasurer; from 1985 to 1986, I served as the Secretary-Treasurer; and, in 1998, I served as the President of the Washington/Baltimore Chapter of AAPOR.

E. Compensation

27. I am being compensated for my work on this engagement at the rate of $595 per hour for my time for non-testimony and $695 per hour for testimony. The payment of my fees is not contingent on the opinions I express in connection with this action.

F. Supporting Documentation

28. The documents on which I relied in forming my opinions are listed in Exhibit 3.

III. Summary of Opinions

29. Use of a statistically reliable sample of loans allows the unbiased and precise estimation of the rate of false statements and omissions concerning the loan populations in the offering documents used in connection with each Securitization. I understand that NCUA proposes to use sampling to establish the falsity of the statements in the offering documents regarding whether loans were originated consistent with representations made in the offering documents, including representations about the loan-to-value ("LTV") or combined loan-to-value ("CLTV") ratios, the applicable underwriting guidelines, and the adequacy of underwriting exceptions and their justifications.

30. I understand that this case involves 82 unique Certificates purchased by NCUA from 75 Securitizations, and that the 82 unique Certificates are collateralized by 79 unique SLGs that

include approximately 286,027 loans.[6] Depending on the Securitization, the Certificates may be collateralized by a single SLG or multiple SLGs. The same SLGs may collateralize different Certificates in a Securitization.

31. I selected a random sample of 100 loans from the SLGs supporting 81 of the 82 unique Certificates (collateralized by 78 of the 79 unique SLGs) purchased by NCUA in the Securitizations, and I supplemented the initial 100 loans with a second random sample of another 100 loans from the SLGs. The initial and backup samples for those 78 unique SLGs consist of 15,600 loans.[7] A loan tape is presently unavailable for the 79th SLG. *See infra* ¶ 56.

32. The first 100 loan sample is designated as the sample of loans to be re-underwritten. In anticipation of missing loan files and a desire to maintain the sample size of 100 loans re-underwritten, the second "backup" sample is available should substitutions be necessary to replace loans in the first sample that are missing loan files. If a loan file is missing from the first 100 loan sample, the next available loan in sequence in the second "backup" sample will be selected.

33. The initial sample of 100 loans and the backup sample of 100 loans are both representative of the Population of loans. The sample size of 100 re-underwritten loans will enable NCUA to estimate, per Certificate, at a 95 percent confidence level with a margin of error of at most +/- 10 percentage points, the percentage of loans as to which the offering documents contained false statements, *e.g.*, number/percentage of loans that had LTV ratios above values specified in the offering documents. This sample size of 100 loans yields a 95 percent confidence level, which is standard in statistics and a maximum margin of error of 10 percentage points, which is sufficiently precise for the purpose. Increasing the sample size to decrease the margin of error would also result in diminishing returns. *See infra* ¶¶ 59-62.

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6 To the extent Defendants provide new Loan Tapes, this number may change slightly.

7 The loans comprising each initial sample of 100 loans and the second supplemental sample of 100 loans are listed in Appendix 2.

34. I have also stratified the sample by FICO credit score to make it possible to reduce the margin of error. Stratification by FICO score cannot increase the margin of error. Stratifying by additional variables would not necessarily reduce the margin of error and could introduce other issues complicating the extrapolation of the sample to the Population. *See infra* ¶¶ 63-64.

35. Once re-underwriting of the loan files is complete, I will be able to extrapolate from the samples to the Populations of loans using well-established methods.

IV. Background on Statistical Sampling

A. Key Concepts in Statistical Sampling: Confidence Level, Margin of Error, and Stratification

36. Statistical sampling is often referred to as "probability sampling." The population refers to the group about which we wish to draw inferences, and the sample is a defined subset of that population. When a sample is randomly selected — that is, when each member of the population from which the sample is drawn has a known chance of being included in the sample — the sample provides an unbiased view of the population.

37. The precision — or reliability — of a sample is measured using the confidence level and the margin of error. *See* Shari Seidman Diamond, Reference Guide on Survey Research in Reference Manual on Scientific Evidence 359, 380 (Fed. Jud. Ctr., 3d ed. 2011) ("In all forms of probability sampling, each element in the relevant population has a known, nonzero probability of being included in the sample. . . . Probability sampling offers two important advantages over other types of sampling. First, the sample can provide an unbiased estimate that summarizes the responses of all persons in the population from which the sample was drawn; that is, the expected value of the sample estimate is the population value being estimated. Second, the researcher can calculate a confidence interval that describes explicitly how reliable the sample estimate of the population is likely to be.").

38. The confidence level refers to the percentage of time that the actual value for the population will be within a specified range around the sample value. The margin of error describes that specified range around the estimated value from the sample. For example, if the results of testing on the sample indicate that 50 percent of the mortgage loans were not originated in accordance with underwriting guidelines, then a confidence level of 95 percent with a +/- 10 percent margin of error means that the statistical probability is 95 percent that the true percentage of loans not originated in accordance with underwriting guidelines in the population will be between 40 and 60 percent. This range is known as the confidence interval.

39. When a sample is used to test a binary question (here, whether a loan was originated outside of the guidelines, or whether the LTV ratio of the loan was misrepresented), the estimate of the margin of error depends on the sample value. The estimated margin of error (for a binary question) is greatest when the sample value is at 50 percent (here, for 50 percent of the loans in the sample, there were false statements or omissions in the offering documents concerning the LTV ratio or adherence to underwriting guidelines). As the sample estimate deviates from 50 percent, in either direction, the margin of error for that estimate decreases. This variation in margin of error, as sample estimate changes, is described below. *See infra* ¶¶ 61-62.

40. Although a sample drawn purely at random from within a population is statistically reliable, one can improve the representativeness and reliability of the sample by stratifying the population and selecting the random sample from within the strata created. *See*, *e.g.*, Steven K. Thompson, Sampling 117-127 (2nd ed. 2002); Paul S. Levy & Stanley Lemeshow, Sampling of Populations: Methods and Applications 121-189 (3rd ed. 1999); William G. Cochran, Sampling Techniques 89-146 (3rd ed. 1977); W. Edwards Deming, Sample Design in Business Research 276-358, 487-493 (1960). Stratification is a process where the population of loans is divided into

mutually exclusive and exhaustive subgroups of loans. Stratification can only be carried out using variables known for the entire population prior to sampling.

41. Stratification commonly is used in sampling for two purposes. The first purpose is to increase the precision of the estimates from the sample. What is calculated from the sample is an estimate of the value in the population. The estimate has a margin of error due to sample-by-sample variability, which is directly related to the variability of the data being examined. When using a stratified sample, this variability is partitioned into two parts. The first part is the variability between the strata. The second part is the variability within each of the strata. Variability between strata is eliminated by forcing the sample into these separate subgroups a priori, leaving only the second part of the variability. Stratification does not guarantee a diminution in the margin of error; it makes the diminution possible.

42. The second purpose of stratification is inapplicable here. Stratification can ensure that some subgroups in the population are included in sufficient numbers so that it is possible to make separate estimates for each of the subgroups. This purpose of stratification does not apply here because the relevant inquiry instead is whether there were misrepresentations and omissions in the offering documents regarding the SLGs as a whole, not a subset of loans within those SLGs.

B. Statistical Sampling Is Scientifically Valid

43. A wide body of peer-reviewed literature in the field of statistics discusses the utility of statistical sampling for making reliable estimates of parameters in large populations of entities. *See*, *e.g.*, Thompson, *supra*; Reference Manual on Scientific Evidence (Fed. Judicial Ctr., 3d ed. 2011); Levy & Lemeshow, *supra*; Dan M. Guy, D. R. Carmichael, & O. Ray Whittington, Audit Sampling: An Introduction (4th ed. 1998); Leslie Kish, Statistical Design for Research (1987); Herbert Arkin, Handbook of Sampling for Auditing and Accounting (3d ed. 1984); Statistical Sampling Subcommittee of American Institute of Certified Public Accountants, Audit Sampling (1983);

Jaroslav Hájek, Sampling from a Finite Population (Václav Dupač & D.B. Owen eds., 1981); Cochran, *supra*; Des Raj, Sampling Theory (1968); Deming, *supra*; Price Waterhouse, Audit Guidance Series: Audit Sampling (1989).

44. In addition, statistical sampling has been used successfully for hundreds of years as a research tool. Results from statistical sampling are replicable, meaning that statistical sampling meets the basic requirement to be a scientific method.

45. There have been numerous applications of statistical sampling in academia, business, and government. For example, the nation's largest statistical agency, the United States Census Bureau, is authorized to base its surveys, including those on the extent of unemployment and the cost of living index, on statistical samples.

46. Statistical sampling has also been widely employed in the American legal system. I have testified in over 50 cases, and statistical sampling was accepted as scientifically valid in each of those cases in which a sample was used. Outside of my personal experience, courts routinely approve the use of statistical sampling in cases in which claims as diverse as breach of contract, fraud, antitrust, trademark infringement, or torts are at issue. One commentator has characterized the Census Bureau's reliance on sampling as a "great step forward" in "the law's gradual acceptance of sampling," because Census Bureau reports "were admissible at common law and in some states by special statutes." Hans Zeisel & David Kaye, Prove It with Figures: Empirical Methods in Law and Litigation 101 (1997). Shari Seidman Diamond, who authored the "Reference Guide on Survey Research," which is part of the Federal Judicial Center's Reference Manual on Scientific Evidence, has identified Census Bureau data and the Standard Table of Mortality (used to present average life expectancy) as examples of sample surveys that "are so well accepted that they even may not be recognized as surveys." Diamond, Reference Guide on Survey Research, in Reference Manual on Scientific Evidence 359, 365 n.18.

47. The development of statistical sampling is grounded in mathematics and is not focused on the type of entity being sampled, but instead applies universally across any entity that can be counted. The accepted techniques of statistical sampling are the same regardless of the population being sampled, whether it consists of widgets, tires, people, or loan files. This principle results in a truism regarding the precision of the sample: The precision of the sample can always be quantified when the methodology is random sampling and the sample is random. Indeed, the result of random sampling should be expressed only as a value accompanied by a confidence interval. Thus, it is as accurate to sample produce for spoilage as to sample loans for noncompliance with guidelines, and the sampling range in each case will be quantifiable and reviewable in the same way.

C. Statistical Sampling Is Routinely Used in the Financial and Mortgage Industries

48. Statistical sampling has been used by the government and private businesses to value and assess pools of loans.

49. Federal regulators, who are charged with examining loans and other activities at the financial institutions they regulate, look at a sample of loans, as it would be impracticable to examine the overwhelming volume of loans held by such an institution. For example, the FDIC routinely relies on statistical samples to examine a bank's compliance with statutory and regulatory requirements. As the FDIC describes in a manual published on its website, bank regulators use statistical sampling of a bank's loan portfolio to determine, among other things: (i) the bank's adherence to its own lending policies; (ii) the adequacy of the quality of the bank's assets and collateral; and, (iii) whether the bank has charged the right interest rate and set aside the proper amount of reserves for the risk it faces. *See* FDIC, Risk Mgmt. Manual of Examination Policies §§ 1.1 & 3.2 (2012), *available at* http://www.fdic.gov/regulations/safety/manual/index.html, a true and correct excerpt of which is attached as Exhibit 4. Thus, the FDIC's objective in using sampling is to determine whether risks in a pool of assets have been properly presented and priced.

50. Similarly, based on my other engagements in this industry, I understand that private businesses that purchase and securitize mortgage loans routinely use statistical sampling to price loan portfolios. Loan originators, underwriters and investment banks, and servicers may use sampling for these and other purposes:

- Loan originators generally require the use of sampling for quality control purposes when purchasing loans from third parties, such as correspondent banks. Loan originators often require the seller to conduct a quality control review of a sample of loans to ensure compliance with guidelines, as well as regulatory compliance.

- Underwriters and investment banks generally use sampling in connection with offering RMBS to investors. More specifically, underwriters and investment banks, or third-party due diligence firms they hire, conduct credit and compliance reviews on random or adverse samples of loans selected from the pools of loans to be included in securitizations.

- Loan servicers generally use sampling to assess compliance with applicable servicing requirements.

- Credit reporting bureaus such as Experian, Transunion, and Equifax use sampling — specifically samples of loans taken from a small sample of banks — to create models to calculate credit scores.

- Financial institutions use sampling to conduct internal audit activities to ensure that transactions are correctly recorded as part of their quality control.

51. As part of its quality control procedures and requirements for loan origination and servicing for FHA-insured loans, HUD has long endorsed the use of statistical sampling. *See* U.S. Department of Housing & Urban Development, HUD Mortgagee Approval Handbook, 4060.1, ¶ 7-6(C), *available at* http://www.hud.gov/offices/adm/hudclips/handbooks/hsgh/4060.1/40601c7HSGH.pdf ("Because it is not feasible to review all loans originated during a period, the Program must require that an appropriately sized sample is selected and evaluated during each review."); Mortgagee Letter 93-14 from U.S. Dep't of Hous. & Urban Dev. To All Approved Mortgagees, *Quality Control for Origination and Servicing Revisions to Mortgagee Letter 89-32* (May 26, 1993), *available at*

http://www.hud.gov/offices/adm/hudclips/letters/mortgagee/files/93-14ml.txt, a true and correct copy of which is attached as Exhibit 5.

V. Proposed Sampling Methodology

A. Purpose of Samples

52. As described above, NCUA expects to use sampling to establish the falsity of the statements in the offering documents regarding whether loans were originated consistent with representations made in the offering documents, including representations about the LTV or CLTV ratios, the applicable underwriting guidelines, and the adequacy of underwriting exceptions and their justifications. I further understand that NCUA will use the samples to enable it to estimate the percentage of loans in the Population that contain misrepresentations as to one or more of these attributes (the "Misrepresented Loans").

53. I have been retained by NCUA's counsel in connection with this litigation to develop a methodology to select a statistically reliable random sample of the relevant SLGs in each Securitization and to extrapolate the results to each Population.

B. The Sample Size Is Sufficient, and Larger Samples Would Yield Diminishing Returns

54. In some RMBS, not every loan collateralizing the RMBS backs every certificate or tranche within that RMBS. The RMBS loan pool may be divided into various loan groups that back different certificates or tranches of that RMBS in various combinations. An SLG for a certificate is the group of loans that directly collateralizes that certificate.

55. I was instructed that the relevant populations are the SLGs for each Certificate. I drew a sample of 100 loans for the relevant SLGs for each Securitization. To draw the 100-loan samples, I used, in most cases, loan tapes provided by Defendants to determine the set of loans composing each SLG.

56. In Case No. 13-6721, loan tapes are presently unavailable for one Securitization.[8] I was able to use publicly available data from the SEC archived EDGAR documents to locate the Loan Tape for this Securitization.[9] I employed the same methodology described in the body of this report to not only select the sample from the relevant SLG but also test the significance for this Securitization. However, given that I have received imperfect information, I reserve the right to run a new sample for this Securitization if new information becomes available. In Case No. 13-6726, neither a loan tape nor adequate publicly available information was available for the GMACM 2006-HE5 Securitization. Should loan tapes become available in the future for that Securitization, I intend to draw loan samples pursuant to the same methodology described herein.

57. A sample size of 100 loans yields an estimate with a 95 percent confidence level at a maximum margin of error of +/- 10 percent.[10] I further stratified each sample based on FICO score, which may increase the precision of the samples by reducing the margin of error. These samples — whether stratified by FICO score or not — are sufficiently large to draw scientifically valid conclusions about each Population.

1. A 95 Percent Confidence Level, with a Maximum Margin of Error of +/- 10 percent, Strikes the Correct Balance Between Cost and Accuracy

58. A 95 percent confidence level with a maximum margin of error of +/- 10 percent is scientifically valid. The confidence level of 95 percent is standard and well supported in statistics. *See* Kevin D. Hoover & Mark V. Siegler, *Sound and Fury: McCloskey and Significance Testing in Economics*, 15 J. Econ. Methodology 1, 13-14, 24 (March 2008) ("The critical value is typically but not always chosen to secure a 5% probability of type I error under the null hypothesis (i.e. a 5% size of the

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[8] The one Securitization is LBMLT 2006-7.

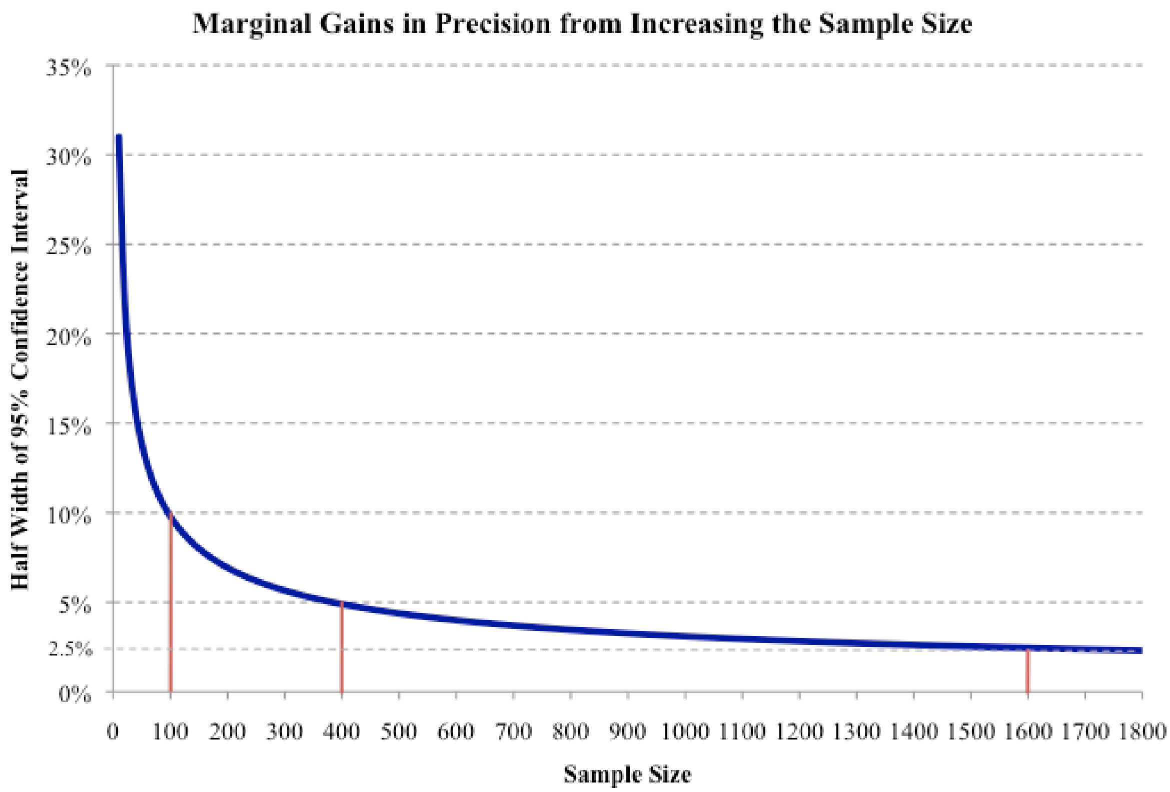
[9] Please refer to the SEC EDGAR website for more information: "https://www.sec.gov/edgar/searchedgar/companysearch.html".

[10] The sample size necessary to achieve these results was 96. I rounded up to 100 out of an abundance of caution. This "oversampling" creates a cushion for my calculations.

test)" and ". . . epidemiology or other areas of medical research . . . faithfully apply a standard of p<0.05 for reporting estimates"); Diamond, 2d ed., supra, at 244 ("Traditionally, scientists adopt the 95% level of confidence . . . .").

59. The +/- 10 percent margin of error, with a 95 percent confidence level, strikes the correct balance between cost and accuracy for two primary reasons. The first reason that increasing sample size would generate only marginal benefits — without commensurate benefits in increased precision — is that the gain in reliability due to a larger sample size increases only as the square root of the sample size. This is demonstrated in Chart 1 below. As the sample size increases from 1 to 100, there is a large increase in reliability (meaning smaller confidence intervals for 95 percent confidence). As the sample size increases from 100 to 400, however, the increase in precision, and associated reduction in confidence interval, is only doubled. To halve the margin of error again, from plus or minus five percent to plus or minus 2.5 percent, the sample size has to quadruple again, from 400 to 1,600.

Chart 1: Diminishing Returns for Increasing Sample Sizes



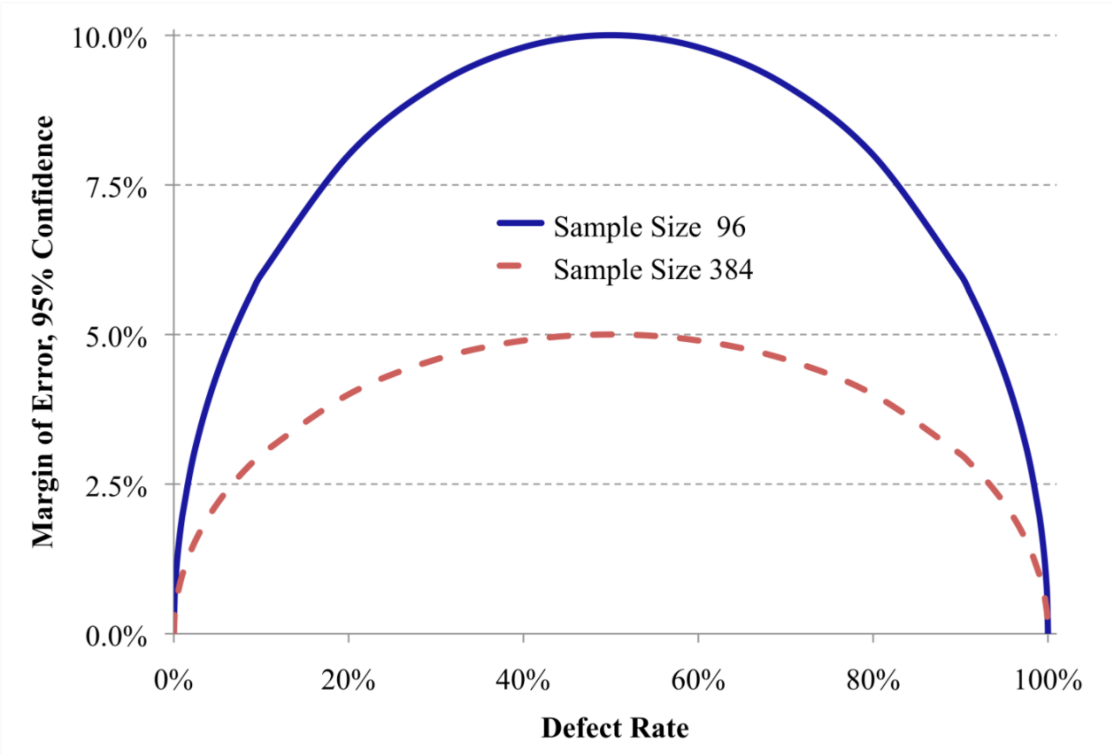
60. As shown in this chart, decreasing the margin of error below +/- 10 percent by increasing the sample size imposes large costs (the money and time needed to re-underwrite additional loan files) without commensurate benefits in increased precision. Increasing the sample size also conflicts with the purpose of this sampling design, which is to provide a practical and scientifically valid methodology to calculate sufficiently precise estimates regarding (i) the number/percentage of loans that had LTV ratios above the values specified in the offering documents, and (ii) whether the loans were originated in compliance with the applicable underwriting guidelines.

61. The second reason that increasing sample size would generate only marginal benefits is because the +/- 10 percent is merely the maximum margin of error for this confidence level, and it occurs only when the estimated percentage of Misrepresented Loans is 50 percent. Fifty percent is the scenario where variability is at its greatest: half contain Misrepresented Loans and half do not.

When the variability decreases — that is, when the percentage deviates from 50 percent in either direction — the margin of error — and thus confidence interval — becomes smaller. As the intervals shrink, the marginal benefit of a larger sample size shrinks as well.

62. As the estimated defect rate deviates from 50 percent in either direction, the difference in the margin of error for samples decreases. This is shown in Chart 2 below, where the margins of error at a 95 percent confidence level for sample sizes of approximately 100 and 400 loans are shown for all possible percentages of Misrepresented Loans. The maximum margins of error are +/- 9.8 percent for a 100 loan sample and +/- 4.9 percent for a 400 loan sample, and occur when the estimated percentage of Misrepresented Loans is 50 percent. As Chart 2 demonstrates, quadrupling the sample size from 100 to 400 loans does not yield a commensurate reduction in the margin of error for a 95 percent confidence level across all possible percentages of Misrepresented Loans. For example, when the estimated rate of Misrepresented Loans is 20 or 80 percent, the margins of error for a 95 percent confidence level are +/- 7.84 percent for a sample size of 100 loans and +/- 3.92 percent for a sample size of 400 loans. When the estimated defect rate is 10 or 90 percent, the margins of error for a 95 percent confidence level are +/- 5.88 percent for a sample size of 100 loans and +/- 2.94 percent for a sample size of 400 loans. As the defect rate approaches zero or 100 percent, the margin of error for the 95 percent level must also approach zero, regardless of sample size.

Chart 2: 95% Margin of Error for Samples of Size Approximately 100 and Approximately 400 for All Defect Rates



2. Stratification by FICO Score May Increase the Precision of the Estimate

63. The only variable I used to stratify the loan pools is the borrower's credit score, specifically the FICO score, which appeared for each loan on the loan tapes to be produced by the Defendants for the Securitizations. A borrower's FICO score can range from 300 to 850. A credit score is a number representing the creditworthiness of a person or the likelihood that person will pay his or her debts. It has shown to be predictive of risk. In my experience, lenders, including mortgage loan originators, use credit scores to determine who qualifies for a loan, at what interest rate, and to what credit limits. In addition, in my experience, a borrower's credit score is highly unlikely to be misstated on a loan tape (unlike, for example, other loan tape data such as the LTV ratio), and is correlated with other factors that could be used as stratification variables. Thus, the benefit of stratifying using variables in addition to FICO is diminished.

64. Although there are other factors available for stratification from the loan tapes, it is reasonable to limit the number of variables used to stratify the population. First, there are diminishing returns to reductions in the margin of error that result from adding more stratification variables. As the number of stratification variables increases, the margin of error tends to decrease, but at a slower and slower rate, until there are only very marginal reductions. Second, these decreases in the margin of error may not materialize if the stratifying variable is not correlated to outcomes of interest or if some of the subgroups created by the stratifying variables are empty. Thus, there may be no benefit to stratifying by additional variables if the goal is simply to increase the number of strata without regard to the ultimate goal, which is reduction of the margin of error.

65. Using FICO score as a stratifying variable, I divided the population of loans in each SLG into four equally sized groups with very low, somewhat low, somewhat high, and high credit scores defining the groups. Because I have sampled each of the Securitizations separately, the set of strata boundaries that defined where one bucket ended and where the next began (three strata boundaries defined the four buckets in each Securitization) differed from Securitization to Securitization. This will not be an issue for estimation from each sample, since the estimates are derived separately for each Securitization, adding up across all the strata.

66. Four strata were created from the credit scores. Each stratum had roughly the same number of loans. A random number was generated for each loan in each stratum, in a manner that ensured that each loan had an equal chance of being selected. After the random numbers were assigned, I sorted the loans from lowest to highest random number within each stratum. The first 25 loans in each stratum were selected for the sample, and the next 25 loans in each stratum were then selected to be in the supplemental stratum, yielding 200 loans for each SLG in the Securitizations.

3. The Sample Is Random and Unbiased

67. The methodology described above for selecting a sample of loans from each Securitization ensures that the sample is random and not subject to manipulation. *See, e.g.,* Thompson, *supra*, at 117-127; Levy & Lemeshow, *supra*, at 121-189; Cochran, *supra*, at 89-146; Deming, *supra*, at 276-358, 487-93.

68. Application of the methodology described herein to create the loan samples is a mechanical process that is subject to no meaningful discretion on my part. Given the SLG loan tapes, the identity of the loans in the 100 initial loan samples and 100 supplemental loan samples was determined not by any choice on my part, but only by the imposition of randomly assigned numbers by standard statistical software.

69. To ensure that the sample selected was representative of the population from which it was selected, I tested the sample (both the initial 100 loan sample and the second backup 100 loan sample) against the Population on eleven key variables (when available) from the loan tapes: FICO score, debt-to-income ratio, LTV ratio, CLTV ratio, note rate, current loan amount, original term, documentation type, occupancy type, property type, and loan purpose.[11] For continuous variables (those where the values are numeric and increasing or decreasing in value, like FICO score and LTV ratio), I compared the mean of the sample distribution to the mean of the Population distribution using z-tests and t-tests, which are common statistical methods for determining that a sample value could have come from the population. For categorical variables (those where the values are categories, such as documentation type), I compared the distribution of the categories in the sample to the distribution of the categories in the Population using a Goodness of Fit Chi-square test. Again, this is a common statistical method for determining that a sample distribution could have come from the population. For a 95 percent confidence level, I would expect 1 in 20 (5 percent) of

[11] Not all eleven variables were available for each Securitization. The variables that were used to test the sample against the Population are indicated in Appendix 1.

the tests to fail by chance. The results of these tests on the samples drawn for each Certificate are listed in Appendix 1. The data and computer programs used to generate the results of these tests (and which allow for the replications of these results) are also being provided to Defendants with this Report. For all of the samples selected, fewer than five percent of the tests failed. These results indicate a very high level of correspondence between the samples and their populations.

70. Samples will remain random and unbiased, even where unavailability of loan files requires that I replace loans in the original 100-loan sample with loans from the 100-loan supplement. This is because the 100-loan supplement will also be ordered using random numbers prior to NCUA obtaining the loan files. Thus, any loans selected as substitutes are preordained and randomly selected.[12]

C. Extrapolation from Sample Re-Underwriting Results to Loan Populations Is Straightforward

71. Once the samples of loans have been re-underwritten and determinations are made regarding each of the inquiries as set forth above in ¶ 52 with respect to compliance with the applicable underwriting guidelines and compliance with the applicable appraisal standards, LTV and CLTV ratios, the next step is to extrapolate the results of such re-underwriting to the Populations.

72. Extrapolation refers to using the results from the sample to estimate the actual values of the population. Here, extrapolation will be the process of using the number of Misrepresented Loans in each sample to estimate the total number of Misrepresented Loans in each Population.

73. There are several statistically valid methods of extrapolating the results of the re-underwriting conducted on the samples to the populations of loans. The actual method to be used depends on the availability of data and the relationships between the variables in the sample.

[12] In the event that the 100 loan backup is insufficient to replace missing loan files from the 100 loan sample (because the supplement itself has missing loan files), I reserve the right to draw a further supplement sample in order to achieve a sample size of approximately 100 loans. I will do so according to the same methodology described herein.

74. The method of extrapolation need not be determined before the sampling methodology can be accepted as statistically viable, because sample design and extrapolation are two separate statistical processes. The method of extrapolation does not determine the sample design. Similarly, there is not a single method of extrapolation that must be used based on my sample design. There are a variety of extrapolation methods that I could apply.

75. For expository purposes only, I have set forth below extrapolation methods that may potentially be used in this action. The method that will ultimately be selected will be the one that minimizes the margin of error. Because the selection of the method depends on which method reduces the margin of error the most, it is a relatively straightforward and uncontroversial process. I intend to present the extrapolation method and results in a separate expert report to be submitted when NCUA's affirmative non-sampling expert reports are due.

76. The first extrapolation method applies to a simple random sample, and assumes that relationships for numbers of loans in the sample are like relationships for numbers of loans in the population. A simple example of this assumption is as follows:

$$\frac{\text{\# of misrepresented loans in sample}}{\text{Total number of loans in the sample}} = \frac{\text{\# of misrepresented loans in population}}{\text{Total number of loans in the population}}$$

77. In this relationship, three of the four numbers are known: (i) the number of loans in the sample that are misrepresented; (ii) the total number of loans in the sample; and (iii) the total number of loans in the population. Solving the equation for the fourth number — the number of loans in the population that are misrepresented — is simple. The mechanism of randomization allows us to assume that the ratio on the right for the population is like the ratio on the left for the sample.

78. With simple random samples, one can calculate the proportion of loans in the sample that are misrepresented. This proportion is an estimate of the proportion of Misrepresented

Loans in the population. Multiplying this proportion by the total number of loans in the SLG provides an estimate of the number of Misrepresented Loans in the population.

79. For a stratified random sample, the same assumption is made, but specifically within each stratum in the population, and an extrapolation is made from each stratum separately. The sample estimate from a stratified random sample is the sum (or average, depending on the type of estimate) of estimates from the individual strata. For a stratified sample, with a simple random sample selected within each stratum, the process described in the previous paragraph is repeated within each of the strata. The estimated number of Misrepresented Loans within each stratum is summed over all strata to give an estimate of the number of Misrepresented Loans in the population.

80. Accordingly, it will be possible using sampling for the fact finder to determine misrepresentations and resulting liability in connection with the sale of each Certificate with a known level of accuracy because of the existence of the confidence level and the margin of error. It also will be possible for the fact finder to determine misrepresentations and resulting liability in connection with the sale of Certificates in all Securitizations with a much higher level of confidence. The Certificates are sampled independently, and one can sum the estimated total number of breaches across all Certificates in all Securitizations.

VI. Conclusion

81. For the reasons set forth above, a sample of 100 loans per Population will be sufficiently large to provide a scientifically reliable estimate of the number of Misrepresented Loans in those Populations. To ensure that we have a sample of 100 loans that is re-underwritten, I selected an initial sample of 100 loans for re-underwriting, and a second backup sample of 100 loans that can be used to provide substitutes for loans with missing loan files, should any be missing in the initial set of 100.

April 4, 2014

Charles D Cowan

CHARLES D. COWAN, Ph.D.

Appendix 1: Significance Test Results for Eleven Key Variables

Notes:

- The entry "Not available" refers to situations where the materials provided by Defendants did not provide the corresponding variable used in the test of representativeness.
- The entry "Not necessary" refers to situations where there is only one category under the corresponding variable, thus, a test of representativeness is not necessary.

NCUA v. Barclays S.D.N.Y. 13-cv-6727

Initial

Variables Tested	BCAP 2007-AA1	BCAP 2007-AA2	BCAP 2007-AA3 (G 1)
FICO Score	98%	61%	84%
Debt-to-Income	65%	78%	84%
Loan-to-Value	89%	75%	56%
Combined LTV	89%	30%	56%
Note Rate	95%	1%	57%
Current Balance	40%	55%	93%
Documentation Type	49%	86%	60%
Occupancy Type	78%	87%	33%
Property Type	51%	64%	26%
Loan Purpose	6%	10%	22%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Variables Tested	BCAP 2007-AA3 (G 2)	BCAPB 2007-AB1	FHLT 2006-C
FICO Score	74%	89%	68%
Debt-to-Income	49%	76%	0%
Loan-to-Value	28%	42%	72%
Combined LTV	28%	42%	36%
Note Rate	28%	10%	83%
Current Balance	79%	16%	96%
Documentation Type	14%	0%	48%
Occupancy Type	96%	86%	44%
Property Type	58%	33%	48%
Loan Purpose	96%	17%	17%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Variables Tested	SABR 2006-HE2	WFHET 2006-3	WFHET 2007-1
FICO Score	67%	43%	58%
Debt-to-Income	30%	10%	83%
Loan-to-Value	69%	36%	12%
Combined LTV	9%	76%	48%
Note Rate	17%	52%	19%
Current Balance	70%	23%	76%
Documentation Type	88%	56%	98%
Occupancy Type	83%	96%	19%
Property Type	75%	18%	81%
Loan Purpose	54%	82%	35%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Supplemental

Variables Tested	BCAP 2007-AA1	BCAP 2007-AA2	BCAP 2007-AA3 (G 1)
FICO Score	41%	28%	82%
Debt-to-Income	9%	16%	63%
Loan-to-Value	10%	56%	77%
Combined LTV	10%	76%	77%
Note Rate	71%	73%	89%
Current Balance	99%	71%	94%
Documentation Type	2%	65%	34%
Occupancy Type	45%	32%	12%
Property Type	24%	55%	26%
Loan Purpose	2%	97%	13%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Variables Tested	BCAP 2007-AA3 (G 2)	BCAPB 2007-AB1	FHLT 2006-C
FICO Score	25%	96%	66%
Debt-to-Income	38%	23%	88%
Loan-to-Value	62%	72%	40%
Combined LTV	62%	72%	65%
Note Rate	69%	18%	21%
Current Balance	39%	89%	40%
Documentation Type	48%	18%	35%
Occupancy Type	29%	19%	33%
Property Type	75%	11%	23%

Loan Purpose	8%	94%	60%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Variables Tested	**SABR 2006-HE2**	**WFHET 2006-3**	**WFHET 2007-1**
FICO Score	92%	94%	65%
Debt-to-Income	54%	29%	57%
Loan-to-Value	36%	87%	96%
Combined LTV	98%	58%	22%
Note Rate	9%	33%	17%
Current Balance	38%	82%	82%
Documentation Type	54%	59%	88%
Occupancy Type	22%	52%	32%
Property Type	95%	19%	18%
Loan Purpose	16%	62%	13%
Original Terms	Not Necessary	Not Necessary	Not Necessary

NCUA v. Credit Suisse S.D.N.Y. 13-cv-6736

Initial

Variables Tested	ARMT 2006-3	ARMT 2007-1	ARMT 2007-2
FICO Score	57%	83%	46%
Debt-to-Income	94%	94%	44%
Loan-to-Value	99%	54%	93%
Combined LTV	74%	76%	90%
Note Rate	96%	89%	37%
Current Balance	34%	5%	8%
Documentation Type	69%	36%	67%
Occupancy Type	40%	56%	29%
Property Type	15%	8%	50%
Loan Purpose	50%	24%	80%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Variables Tested	HEAT 2006-6	HEMT 2006-2	HEMT 2007-2
FICO Score	94%	73%	82%
Debt-to-Income	91%	28%	73%
Loan-to-Value	90%	87%	34%
Combined LTV	Not Available	63%	17%
Note Rate	2%	82%	58%
Current Balance	28%	33%	92%
Documentation Type	6%	95%	97%
Occupancy Type	Not Necessary	63%	69%
Property Type	22%	98%	90%
Loan Purpose	53%	2%	43%
Original Terms	1%	57%	75%

Variables Tested	LBMLT 2006-1	LBMLT 2006-6	RALI 2006-QA9
FICO Score	81%	76%	95%
Debt-to-Income	99%	49%	28%
Loan-to-Value	38%	12%	39%
Combined LTV	74%	61%	14%
Note Rate	62%	67%	22%
Current Balance	59%	74%	89%
Documentation	31%	77%	83%

Variables Tested	LBMLT 2006-1	LBMLT 2006-6	RALI 2006-QA9
Type			
Occupancy Type	Not Necessary	5%	54%
Property Type	57%	89%	53%
Loan Purpose	67%	44%	15%
Original Terms	95%	47%	Not Necessary

Supplemental

Variables Tested	ARMT 2006-3	ARMT 2007-1	ARMT 2007-2
FICO Score	91%	81%	40%
Debt-to-Income	52%	58%	57%
Loan-to-Value	96%	12%	0%
Combined LTV	48%	8%	0%
Note Rate	63%	22%	97%
Current Balance	82%	55%	61%
Documentation Type	30%	36%	12%
Occupancy Type	74%	74%	19%
Property Type	96%	11%	47%
Loan Purpose	30%	1%	77%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Variables Tested	HEAT 2006-6	HEMT 2006-2	HEMT 2007-2
FICO Score	98%	63%	86%
Debt-to-Income	89%	45%	31%
Loan-to-Value	98%	61%	26%
Combined LTV	Not Available	97%	27%
Note Rate	71%	61%	79%
Current Balance	18%	59%	46%
Documentation Type	54%	100%	33%
Occupancy Type	Not Necessary	54%	39%
Property Type	72%	2%	97%
Loan Purpose	1%	11%	24%
Original Terms	16%	19%	72%

Variables Tested	LBMLT 2006-1	LBMLT 2006-6	RALI 2006-QA9
FICO Score	72%	94%	46%
Debt-to-Income	80%	10%	37%
Loan-to-Value	37%	60%	22%
Combined LTV	8%	61%	49%

Variables Tested	LBMLT 2006-1	LBMLT 2006-6	RALI 2006-QA9
Note Rate	6%	59%	7%
Current Balance	64%	72%	88%
Documentation Type	53%	47%	76%
Occupancy Type	Not Necessary	40%	24%
Property Type	95%	59%	97%
Loan Purpose	29%	82%	80%
Original Terms	64%	74%	Not Necessary

NCUA v. Goldman Sachs S.D.N.Y. 13-cv-6721

Initial

Variables Tested	GSAA 2007-3 (G 1)	GSAA 2007-5 (G 2)	LBMLT 2006-7 (G2)
FICO Score	79%	86%	94%
Debt-to-Income	47%	24%	79%
Loan-to-Value	2%	68%	32%
Combined LTV	4%	9%	48%
Note Rate	38%	38%	25%
Current Balance	52%	18%	59%
Documentation Type	76%	66%	35%
Occupancy Type	73%	93%	84%
Property Type	19%	64%	89%
Loan Purpose	26%	47%	11%
Original Terms	Not Necessary	Not Necessary	48%

Supplemental

Variables Tested	GSAA 2007-3 (G 1)	GSAA 2007-5 (G 2)	LBMLT 2006-7 (G 2)
FICO Score	71%	90%	90%
Debt-to-Income	78%	46%	90%
Loan-to-Value	28%	35%	75%
Combined LTV	28%	55%	92%
Note Rate	61%	7%	84%
Current Balance	44%	74%	81%
Documentation Type	71%	89%	40%
Occupancy Type	73%	41%	74%
Property Type	18%	32%	44%
Loan Purpose	53%	75%	71%
Original Terms	Not Necessary	Not Necessary	39%

NCUA v. Morgan Stanley S.D.N.Y. 13-cv-6705

Initial

Variables Tested	MSAC 2006-HE2 (ALL)	MSAC 2006-HE2 (G 2)	MSAC 2006-HE4
FICO Score	99%	78%	49%
Debt-to-Income	32%	54%	65%
Loan-to-Value	93%	42%	0%
Combined LTV	Not Available	Not Available	Not Available
Note Rate	30%	30%	8%
Current Balance	15%	25%	94%
Documentation Type	11%	15%	65%
Occupancy Type	Not Necessary	Not Necessary	90%
Property Type	42%	22%	90%
Loan Purpose	61%	40%	75%
Original Terms	93%	61%	6%

Variables Tested	MSAC 2006-HE6	MSAC 2006-HE8	MSAC 2006-NC4
FICO Score	85%	75%	80%
Debt-to-Income	83%	40%	5%
Loan-to-Value	24%	87%	44%
Combined LTV	Not Available	Not Available	Not Available
Note Rate	97%	86%	25%
Current Balance	22%	22%	83%
Documentation Type	37%	18%	86%
Occupancy Type	Not Necessary	19%	32%
Property Type	25%	84%	40%
Loan Purpose	86%	29%	71%
Original Terms	82%	Not Necessary	Not Necessary

Variables Tested	MSAC 2006-WMC2	MSAC 2007-HE4	MSAC 2007-HE5
FICO Score	93%	83%	77%
Debt-to-Income	22%	76%	48%
Loan-to-Value	49%	45%	75%
Combined LTV	Not Available	Not Available	Not Available
Note Rate	38%	37%	65%
Current Balance	67%	25%	86%

Variables Tested	MSAC 2006-WMC2	MSAC 2007-HE4	MSAC 2007-HE5
Documentation Type	26%	91%	95%
Occupancy Type	Not Necessary	Not Necessary	Not Necessary
Property Type	79%	79%	100%
Loan Purpose	88%	41%	79%
Original Terms	73%	Not Necessary	Not Necessary

Variables Tested	MSHEL 2006-1	MSHEL 2007-2	MSIX 2006-1
FICO Score	82%	84%	62%
Debt-to-Income	86%	34%	22%
Loan-to-Value	100%	78%	62%
Combined LTV	Not Available	Not Available	Not Available
Note Rate	49%	23%	81%
Current Balance	55%	83%	6%
Documentation Type	87%	2%	98%
Occupancy Type	15%	19%	0%
Property Type	90%	53%	65%
Loan Purpose	49%	43%	42%
Original Terms	86%	17%	93%

Variables Tested	MSM 2005-11AR	MSM 2006-10SL	MSM 2006-13ARX
FICO Score	94%	91%	91%
Debt-to-Income	74%	3%	2%
Loan-to-Value	79%	59%	2%
Combined LTV	82%	46%	34%
Note Rate	29%	24%	54%
Current Balance	98%	93%	37%
Documentation Type	84%	20%	32%
Occupancy Type	57%	7%	16%
Property Type	24%	5%	54%
Loan Purpose	95%	71%	87%
Original Terms	Not Necessary	86%	Not Necessary

Variables Tested	MSM 2006-16AX	MSM 2006-3AR	MSM 2006-8AR
FICO Score	86%	90%	58%
Debt-to-Income	55%	16%	23%
Loan-to-Value	60%	96%	66%
Combined LTV	90%	62%	44%

Variables Tested	MSM 2006-16AX	MSM 2006-3AR	MSM 2006-8AR
Note Rate	71%	60%	99%
Current Balance	43%	55%	48%
Documentation Type	58%	61%	70%
Occupancy Type	79%	62%	42%
Property Type	14%	57%	56%
Loan Purpose	71%	80%	53%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Variables Tested	MSM 2006-9AR	MSM 2007-11AR	MSM 2007-2AX
FICO Score	76%	93%	95%
Debt-to-Income	40%	16%	12%
Loan-to-Value	22%	40%	10%
Combined LTV	80%	54%	23%
Note Rate	64%	69%	39%
Current Balance	49%	76%	88%
Documentation Type	75%	30%	17%
Occupancy Type	28%	98%	11%
Property Type	1%	86%	60%
Loan Purpose	89%	94%	72%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Variables Tested	MSM 2007-4SL	MSM 2007-5AX	NTIX 2007-HE2
FICO Score	58%	57%	55%
Debt-to-Income	42%	26%	25%
Loan-to-Value	72%	82%	89%
Combined LTV	Not Available	49%	Not Available
Note Rate	67%	96%	80%
Current Balance	19%	15%	53%
Documentation Type	61%	80%	35%
Occupancy Type	95%	38%	38%
Property Type	92%	92%	42%
Loan Purpose	65%	84%	41%
Original Terms	73%	Not Necessary	62%

Variables Tested	RALI 2006-QA5	SAST 2007-2

FICO Score	89%	37%
Debt-to-Income	5%	48%
Loan-to-Value	49%	33%
Combined LTV	18%	37%
Note Rate	72%	77%
Current Balance	24%	77%
Documentation Type	18%	61%
Occupancy Type	52%	63%
Property Type	49%	8%
Loan Purpose	51%	16%
Original Terms	Not Necessary	47%

Supplemental

Variables Tested	**MSAC 2006-HE2 (ALL)**	**MSAC 2006-HE2 (G 2)**	**MSAC 2006-HE4**
FICO Score	87%	80%	99%
Debt-to-Income	48%	66%	90%
Loan-to-Value	96%	37%	53%
Combined LTV	Not Available	Not Available	Not Available
Note Rate	84%	29%	89%
Current Balance	94%	33%	82%
Documentation Type	65%	98%	81%
Occupancy Type	Not Necessary	Not Necessary	58%
Property Type	7%	31%	2%
Loan Purpose	97%	83%	70%
Original Terms	69%	33%	65%

Variables Tested	**MSAC 2006-HE6**	**MSAC 2006-HE8**	**MSAC 2006-NC4**
FICO Score	93%	57%	64%
Debt-to-Income	77%	24%	2%
Loan-to-Value	100%	69%	34%
Combined LTV	Not Available	Not Available	Not Available
Note Rate	96%	69%	16%
Current Balance	37%	95%	100%
Documentation Type	3%	88%	65%
Occupancy Type	Not Necessary	55%	8%
Property Type	13%	32%	14%
Loan Purpose	48%	48%	19%

Variables Tested	MSAC 2006-HE6	MSAC 2006-HE8	MSAC 2006-NC4
Original Terms	94%	Not Necessary	Not Necessary

Variables Tested	MSAC 2006-WMC2	MSAC 2007-HE4	MSAC 2007-HE5
FICO Score	89%	59%	73%
Debt-to-Income	62%	39%	61%
Loan-to-Value	87%	73%	27%
Combined LTV	Not Available	Not Available	Not Available
Note Rate	61%	99%	2%
Current Balance	67%	84%	90%
Documentation Type	20%	6%	43%
Occupancy Type	Not Necessary	Not Necessary	Not Necessary
Property Type	40%	22%	96%
Loan Purpose	11%	59%	22%
Original Terms	76%	Not Necessary	Not Necessary

Variables Tested	MSHEL 2006-1	MSHEL 2007-2	MSIX 2006-1
FICO Score	55%	73%	96%
Debt-to-Income	34%	20%	20%
Loan-to-Value	33%	31%	81%
Combined LTV	Not Available	Not Available	Not Available
Note Rate	86%	67%	59%
Current Balance	35%	90%	83%
Documentation Type	52%	96%	1%
Occupancy Type	58%	97%	80%
Property Type	28%	28%	66%
Loan Purpose	80%	28%	3%
Original Terms	86%	43%	26%

Variables Tested	MSM 2005-11AR	MSM 2006-10SL	MSM 2006-13ARX
FICO Score	75%	81%	83%
Debt-to-Income	82%	23%	26%
Loan-to-Value	30%	59%	48%
Combined LTV	69%	0%	49%
Note Rate	35%	72%	5%
Current Balance	56%	33%	10%
Documentation Type	79%	9%	30%
Occupancy Type	56%	30%	17%

Variables Tested	MSM 2005-11AR	MSM 2006-10SL	MSM 2006-13ARX
Property Type	59%	42%	29%
Loan Purpose	72%	91%	66%
Original Terms	Not Necessary	3%	Not Necessary

Variables Tested	MSM 2006-16AX	MSM 2006-3AR	MSM 2006-8AR
FICO Score	52%	88%	76%
Debt-to-Income	4%	74%	90%
Loan-to-Value	78%	58%	3%
Combined LTV	46%	41%	18%
Note Rate	13%	29%	49%
Current Balance	10%	11%	59%
Documentation Type	40%	77%	53%
Occupancy Type	19%	11%	27%
Property Type	7%	13%	58%
Loan Purpose	19%	96%	43%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Variables Tested	MSM 2006-9AR	MSM 2007-11AR	MSM 2007-2AX
FICO Score	88%	89%	77%
Debt-to-Income	55%	10%	35%
Loan-to-Value	98%	35%	0%
Combined LTV	46%	8%	0%
Note Rate	39%	91%	39%
Current Balance	78%	75%	45%
Documentation Type	33%	18%	87%
Occupancy Type	91%	3%	50%
Property Type	53%	37%	93%
Loan Purpose	39%	13%	20%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Variables Tested	MSM 2007-4SL	MSM 2007-5AX	NTIX 2007-HE2
FICO Score	93%	7%	76%
Debt-to-Income	20%	57%	14%
Loan-to-Value	53%	47%	57%
Combined LTV	Not Available	48%	Not Available
Note Rate	23%	80%	53%
Current Balance	31%	15%	28%

Variables Tested	MSM 2007-4SL	MSM 2007-5AX	NTIX 2007-HE2
Documentation Type	42%	90%	80%
Occupancy Type	74%	1%	6%
Property Type	2%	44%	45%
Loan Purpose	39%	65%	50%
Original Terms	94%	Not Necessary	11%

Variables Tested	RALI 2006-QA5	SAST 2007-2
FICO Score	71%	47%
Debt-to-Income	29%	28%
Loan-to-Value	42%	50%
Combined LTV	41%	81%
Note Rate	47%	71%
Current Balance	93%	53%
Documentation Type	19%	17%
Occupancy Type	88%	37%
Property Type	79%	7%
Loan Purpose	99%	25%
Original Terms	Not Necessary	67%

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Initial

Variables Tested	HVMLT 2006-10	HVMLT 2007-1 (G 2)	HVMLT 2007-2
FICO Score	82%	59%	60%
Debt-to-Income	41%	31%	52%
Loan-to-Value	2%	61%	38%
Combined LTV	2%	12%	25%
Note Rate	85%	17%	14%
Current Balance	96%	61%	54%
Documentation Type	47%	65%	29%
Occupancy Type	91%	23%	52%
Property Type	30%	66%	42%
Loan Purpose	29%	90%	38%
Original Terms	33%	79%	98%

Variables Tested	HVMLT 2007-3	INDX 2006-AR6	LBMLT 2006-2
FICO Score	37%	79%	76%
Debt-to-Income	19%	10%	20%
Loan-to-Value	96%	51%	60%
Combined LTV	36%	72%	84%
Note Rate	80%	28%	86%
Current Balance	61%	21%	98%
Documentation Type	66%	59%	10%
Occupancy Type	53%	Not Necessary	Not Necessary
Property Type	61%	4%	91%
Loan Purpose	22%	21%	82%
Original Terms	43%	39%	100%

Variables Tested	LBMLT 2006-8	MHL 2006-1 (G 1-A2)	MHL 2006-1
FICO Score	70%	80%	62%
Debt-to-Income	9%	77%	51%
Loan-to-Value	92%	97%	51%
Combined LTV	97%	94%	57%
Note Rate	93%	49%	48%
Current Balance	44%	24%	80%
Documentation	17%	92%	10%

Variables Tested	LBMLT 2006-8	MHL 2006-1 (G 1-A2)	MHL 2006-1
Type			
Occupancy Type	66%	Not Necessary	29%
Property Type	12%	6%	35%
Loan Purpose	88%	64%	5%
Original Terms	95%	Not Necessary	Not Necessary

Variables Tested	NAA 2006-AR4	NHELI 2007-1	OOMLT 2007-2
FICO Score	80%	79%	76%
Debt-to-Income	57%	78%	30%
Loan-to-Value	94%	73%	96%
Combined LTV	48%	86%	62%
Note Rate	93%	12%	83%
Current Balance	75%	67%	45%
Documentation Type	5%	16%	48%
Occupancy Type	20%	94%	Not Necessary
Property Type	25%	66%	53%
Loan Purpose	92%	99%	69%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Variables Tested	SVHE 2006-WF1
FICO Score	95%
Debt-to-Income	98%
Loan-to-Value	95%
Combined LTV	99%
Note Rate	85%
Current Balance	86%
Documentation Type	11%
Occupancy Type	41%
Property Type	73%
Loan Purpose	48%
Original Terms	Not Necessary

Supplemental

Variables Tested	HVMLT 2006-10	HVMLT 2007-1 (G 2)	HVMLT 2007-2
FICO Score	85%	97%	76%
Debt-to-Income	64%	25%	48%
Loan-to-Value	92%	38%	7%
Combined LTV	76%	58%	95%

Variables Tested	HVMLT 2006-10	HVMLT 2007-1 (G 2)	HVMLT 2007-2
Note Rate	43%	93%	78%
Current Balance	21%	73%	57%
Documentation Type	99%	91%	48%
Occupancy Type	82%	44%	23%
Property Type	18%	33%	39%
Loan Purpose	6%	65%	59%
Original Terms	92%	61%	72%

Variables Tested	HVMLT 2007-3	INDX 2006-AR6	LBMLT 2006-2
FICO Score	41%	90%	91%
Debt-to-Income	98%	53%	10%
Loan-to-Value	39%	72%	28%
Combined LTV	57%	40%	51%
Note Rate	84%	84%	95%
Current Balance	60%	23%	77%
Documentation Type	74%	15%	88%
Occupancy Type	47%	Not Necessary	Not Necessary
Property Type	13%	53%	46%
Loan Purpose	97%	88%	82%
Original Terms	76%	76%	22%

Variables Tested	LBMLT 2006-8	MHL 2006-1 (G 1-A2)	MHL 2006-1
FICO Score	59%	84%	98%
Debt-to-Income	52%	49%	57%
Loan-to-Value	58%	44%	18%
Combined LTV	25%	60%	14%
Note Rate	11%	27%	22%
Current Balance	87%	85%	86%
Documentation Type	23%	13%	44%
Occupancy Type	30%	Not Necessary	1%
Property Type	70%	61%	48%
Loan Purpose	51%	4%	99%
Original Terms	5%	Not Necessary	Not Necessary

Variables Tested	NAA 2006-AR4	NHELI 2007-1	OOMLT 2007-2
FICO Score	76%	88%	98%
Debt-to-Income	9%	98%	19%

Variables Tested	NAA 2006-AR4	NHELI 2007-1	OOMLT 2007-2
Loan-to-Value	83%	55%	65%
Combined LTV	47%	90%	61%
Note Rate	23%	72%	86%
Current Balance	30%	62%	77%
Documentation Type	76%	64%	28%
Occupancy Type	72%	61%	Not Necessary
Property Type	58%	35%	75%
Loan Purpose	17%	18%	90%
Original Terms	Not Necessary	Not Necessary	Not Necessary

Variables Tested	SVHE 2006-WF1
FICO Score	88%
Debt-to-Income	94%
Loan-to-Value	76%
Combined LTV	56%
Note Rate	82%
Current Balance	29%
Documentation Type	49%
Occupancy Type	66%
Property Type	20%
Loan Purpose	10%
Original Terms	Not Necessary

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Initial

Variables Tested	ARSI 2006-W3	CWALT 2006-OA3	CWALT 2006-OA8
FICO Score	98%	96%	28%
Debt-to-Income	74%	34%	54%
Loan-to-Value	43%	5%	63%
Combined LTV	15%	4%	99%
Note Rate	57%	53%	73%
Current Balance	72%	67%	55%
Documentation Type	47%	42%	15%
Occupancy Type	57%	17%	7%
Property Type	70%	74%	77%
Loan Purpose	23%	82%	19%
Original Terms	Not Necessary	60%	63%

Variables Tested	CWHL 2006-OA5 (G 1)	CWHL 2006-OA5 (G 2)	FHLT 2006-B
FICO Score	85%	85%	32%
Debt-to-Income	13%	7%	31%
Loan-to-Value	44%	96%	57%
Combined LTV	65%	49%	60%
Note Rate	70%	33%	11%
Current Balance	61%	65%	24%
Documentation Type	62%	49%	25%
Occupancy Type	42%	86%	Not Necessary
Property Type	79%	28%	90%
Loan Purpose	87%	89%	18%
Original Terms	60%	30%	Not Necessary

Variables Tested	INABS 2007-A	INDS 2006-3	INDS 2007-1
FICO Score	98%	80%	85%
Debt-to-Income	47%	52%	90%
Loan-to-Value	71%	17%	23%
Combined LTV	60%	60%	77%
Note Rate	44%	31%	97%
Current Balance	11%	91%	70%

Variables Tested	INABS 2007-A	INDS 2006-3	INDS 2007-1
Documentation Type	69%	97%	42%
Occupancy Type	12%	Not Necessary	Not Necessary
Property Type	78%	68%	10%
Loan Purpose	66%	85%	45%
Original Terms	17%	Not Necessary	Not Necessary

Variables Tested	INDS 2007-2	MABS 2006-HE2	MABS 2006-WMC1
FICO Score	64%	73%	55%
Debt-to-Income	92%	41%	1%
Loan-to-Value	42%	22%	21%
Combined LTV	3%	99%	26%
Note Rate	51%	84%	18%
Current Balance	11%	62%	55%
Documentation Type	30%	80%	21%
Occupancy Type	Not Necessary	26%	60%
Property Type	87%	78%	17%
Loan Purpose	21%	40%	13%
Original Terms	Not Necessary	Not Necessary	15%

Variables Tested	MABS 2006-WMC4	MARM 2007-2	MARM 2007-HF2
FICO Score	57%	91%	49%
Debt-to-Income	27%	9%	97%
Loan-to-Value	61%	24%	23%
Combined LTV	58%	45%	67%
Note Rate	54%	88%	89%
Current Balance	92%	79%	42%
Documentation Type	79%	64%	49%
Occupancy Type	Not Necessary	12%	98%
Property Type	97%	90%	53%
Loan Purpose	56%	18%	80%
Original Terms	50%	Not Necessary	Not Necessary

Variables Tested	MASL 2006-1
FICO Score	84%
Debt-to-Income	88%
Loan-to-Value	66%
Combined LTV	43%

Variables Tested	MASL 2006-1
Note Rate	88%
Current Balance	97%
Documentation Type	83%
Occupancy Type	73%
Property Type	52%
Loan Purpose	46%
Original Terms	93%

Supplemental

Variables Tested	ARSI 2006-W3	CWALT 2006-OA3	CWALT 2006-OA8
FICO Score	93%	80%	70%
Debt-to-Income	85%	31%	36%
Loan-to-Value	25%	11%	97%
Combined LTV	88%	53%	32%
Note Rate	64%	94%	6%
Current Balance	10%	28%	44%
Documentation Type	92%	75%	78%
Occupancy Type	57%	69%	24%
Property Type	58%	89%	46%
Loan Purpose	80%	21%	65%
Original Terms	Not Necessary	4%	86%

Variables Tested	CWHL 2006-OA5 (G 1)	CWHL 2006-OA5 (G 2)	FHLT 2006-B
FICO Score	67%	42%	93%
Debt-to-Income	54%	10%	91%
Loan-to-Value	13%	47%	31%
Combined LTV	28%	92%	62%
Note Rate	64%	30%	49%
Current Balance	5%	16%	77%
Documentation Type	49%	24%	13%
Occupancy Type	98%	67%	Not Necessary
Property Type	30%	66%	87%
Loan Purpose	54%	46%	82%
Original Terms	76%	15%	Not Necessary

Variables Tested	INABS 2007-A	INDS 2006-3	INDS 2007-1
FICO Score	99%	94%	87%
Debt-to-Income	67%	17%	68%
Loan-to-Value	21%	62%	37%
Combined LTV	94%	55%	74%
Note Rate	31%	55%	14%
Current Balance	45%	83%	31%
Documentation Type	55%	16%	43%
Occupancy Type	99%	Not Necessary	Not Necessary
Property Type	82%	99%	58%
Loan Purpose	35%	79%	75%
Original Terms	60%	Not Necessary	Not Necessary

Variables Tested	INDS 2007-2	MABS 2006-HE2	MABS 2006-WMC1
FICO Score	51%	87%	79%
Debt-to-Income	48%	66%	24%
Loan-to-Value	27%	96%	16%
Combined LTV	84%	87%	35%
Note Rate	28%	65%	46%
Current Balance	16%	42%	60%
Documentation Type	93%	67%	84%
Occupancy Type	Not Necessary	6%	69%
Property Type	27%	50%	95%
Loan Purpose	59%	46%	33%
Original Terms	Not Necessary	Not Necessary	35%

Variables Tested	MABS 2006-WMC4	MARM 2007-2	MARM 2007-HF2
FICO Score	99%	71%	45%
Debt-to-Income	18%	45%	78%
Loan-to-Value	60%	73%	99%
Combined LTV	56%	29%	93%
Note Rate	43%	45%	65%
Current Balance	71%	83%	20%
Documentation Type	32%	33%	86%
Occupancy Type	Not Necessary	86%	68%
Property Type	0%	70%	88%
Loan Purpose	97%	60%	80%
Original Terms	80%	Not Necessary	Not Necessary

Variables Tested	MASL 2006-1
FICO Score	100%
Debt-to-Income	4%
Loan-to-Value	51%
Combined LTV	31%
Note Rate	4%
Current Balance	53%
Documentation Type	59%
Occupancy Type	48%
Property Type	12%
Loan Purpose	50%
Original Terms	23%

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Initial

Variables Tested	WMLT 2006-ALT1	WMLT 2006-AMN1
FICO Score	97%	97%
Debt-to-Income	30%	66%
Loan-to-Value	6%	94%
Combined LTV	14%	57%
Note Rate	61%	34%
Current Balance	51%	15%
Documentation Type	40%	35%
Occupancy Type	31%	74%
Property Type	7%	52%
Loan Purpose	2%	35%
Original Terms	Not Necessary	Not Necessary

Supplemental

Variables Tested	WMLT 2006-ALT1	WMLT 2006-AMN1
FICO Score	72%	99%
Debt-to-Income	72%	72%
Loan-to-Value	1%	54%
Combined LTV	2%	91%
Note Rate	32%	49%
Current Balance	14%	67%
Documentation Type	89%	93%
Occupancy Type	57%	41%
Property Type	11%	82%
Loan Purpose	71%	17%
Original Terms	Not Necessary	Not Necessary

Appendix 2: List of Initial Samples and Supplemental Samples

Notes:

- The "Initial 100 Loan Sample" identifies the set of loans to be re-underwritten. The "Supplemental 100 Loan Sample" provides a list of "backup" loans per stratum for the initial 100 loans in anticipation of missing loan files.

- The supplementation will occur in a sequential basis starting on row 26 of each FICO stratum.

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BCAPB 2007-AB1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	157416843	157414871	157102633	157089392
2	156601445	157501321	157265166	157207697
3	157293713	71257232	156811432	157120262
4	71424238	156544942	156583031	156812364
5	156967002	157592882	157006883	157036229
6	157112863	157492083	157310558	157426438
7	157271701	147890214	157137274	156401127
8	156582561	156708109	157227836	157425455
9	157337411	156644932	157505223	156691438
10	156991184	157535022	156585333	157099284
11	157467796	154003347	155312895	157326117
12	156164428	157508003	157396219	157516006
13	156828709	156965964	157487455	157082777
14	157081589	157278425	156527244	157349887
15	156954455	156694804	157108325	157217787
16	156952582	157509043	155896632	157235136
17	155077191	157485889	71827505	157068909
18	156739856	157418351	157377326	151951167
19	157354143	157005794	156742124	156879686
20	70938592	156948135	157421249	157022369
21	156590689	157503079	157176579	156659088
22	157081894	157389396	155965981	156810814
23	156858672	157395682	71359756	157403098
24	156676603	156718371	156723959	157147232
25	157041708	157095829	157283763	156115701

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	156751406	155766728	156409401	156239592
27	157370974	151905874	156760274	157298522
28	156951782	70681887	155457435	156967713
29	156862641	156407504	69855542	156070914
30	156917957	156821555	155794969	157388489
31	157553728	157244237	157292194	156996894
32	154894653	157554957	69953792	157218785
33	157239211	157432139	156971095	152303848
34	157260738	157515248	156906034	157222712
35	155669971	157260365	154224059	155523954
36	156411134	157654708	156138026	157263286
37	156372062	157622929	157356684	70224308
38	70772272	157514753	68116516	157347022
39	156958332	157349986	156652547	157426073
40	157697681	71723688	157386855	69353654
41	156671638	156786436	71569651	156915357
42	156589434	70298567	151884608	157435728
43	157622358	70287545	157123308	156616625
44	156425118	156972804	69749679	157246539
45	156526444	156821456	71029649	157217514
46	157616426	157613407	157009101	157188871
47	157217324	157220385	157457052	71117519
48	156930943	157333519	157591272	157287558
49	157170002	157097916	157731654	157351651
50	157228388	156902397	157372574	157190232

BCAP 2007-AA1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	125023238	6079903	124545193	125091902
2	124773984	125060123	125082722	125017593
3	124970657	125080650	6079866	124828296
4	125127753	124799175	125165944	124864513
5	124708696	6078891	125071389	124953029
6	125157791	124990188	6078973	125151879
7	124811827	124985036	124623957	125082973
8	124933963	124986251	125202509	125141637
9	124562379	125089012	124878294	125021337

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
10	125038603	124377276	124567818	125010407
11	6070493	124905270	124663547	125145947
12	125063341	125101731	124567749	124934260
13	124368497	125143877	124949418	124429719
14	124302044	6070928	124925715	6063215
15	125176756	124775315	125021273	125127233
16	125048321	124689265	124913211	125051998
17	125056873	125165935	125039734	6070485
18	125148393	124342658	124313427	124789073
19	125032430	124352724	125209838	124174373
20	124992756	125052381	124653348	125008586
21	124956075	6070483	125096103	124923556
22	124938128	124702668	124310904	124981834
23	124950352	124878459	124905346	124843107
24	125165938	124438283	125020918	124670987
25	124506045	125124058	6072110	125008065

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	124638082	6078985	125088655	125039793
27	125062627	124826294	124686631	125076168
28	6072109	125154947	124687425	124969593
29	124965616	125073789	125120928	125135054
30	124816649	6072133	124758780	125025999
31	124995117	124984144	124939119	6079875
32	124672992	124933929	124843067	124784220
33	125160007	125043958	6064036	124957288
34	6079241	6079217	125102631	125061942
35	125079097	124843159	125095850	124957522
36	124447235	125036376	125077972	124644258
37	125070701	125067122	6057155	6070467
38	6070954	124648310	124637411	125098501
39	6070477	6072144	124881878	124991932
40	125056935	124703831	6078885	125067240
41	125118304	124927240	6078874	124903839
42	124933964	124617394	124933831	125089364
43	125141784	6070481	124689666	124655089
44	124522077	124877937	125073551	124937268
45	124947450	125069747	125021323	6070656

46	124755386	124827170	124995008	124917118
47	124710684	124756353	6079812	124906141
48	125041977	125039382	124958600	124548875
49	124871829	125024239	125021330	125115394
50	124511655	123933388	6079210	124947001

BCAP 2007-AA2

Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	152851950	164248970	146881300	154761318
2	131228017	157011144	157353999	158690050
3	157663190	157912028	155681386	156985373
4	144891333	157054940	157049811	156666945
5	157437624	154734002	157754581	156775020
6	158678816	148148316	156258661	147641660
7	157177059	158515614	152930492	147347279
8	156044408	156178218	148056368	147385236
9	146404372	156968353	147155903	157674176
10	152620568	157102738	148080219	148028509
11	157302313	147342143	156884597	154942442
12	157122355	138763441	157762822	148125129
13	156582107	155180684	153758947	147394853
14	77156197	148235911	157257126	155823708
15	147340567	158118792	156048208	152060491
16	157813840	147731472	156935985	146603609
17	147706052	149160701	157813196	156753832
18	74128823	131812402	146656760	147301250
19	148243640	148121680	139660626	155546464
20	147339310	141674637	155323840	155882883
21	163866590	148244696	154828423	111828578
22	153682454	154742949	147579500	157923101
23	153945180	147345687	147392397	155818114
24	148732203	148165766	157443816	152434688
25	159146233	156650533	148770031	156450657

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	157559410	157124144	147364338	155540268
27	158177587	155815778	148040654	149466803

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
28	148317177	147402262	147391949	156602494
29	155062149	155659588	157171182	165080934
30	143098388	155662133	157566147	157053308
31	163902517	157491020	144323985	20477193
32	20465002	140479656	154699152	139021020
33	156768859	156639963	147010548	140262125
34	140697823	148232806	156435294	155747563
35	155451370	155642277	147136988	158420080
36	156004151	155444240	148230118	156449185
37	146384473	156289257	163764225	146261426
38	146413781	155865687	147565787	156604942
39	157016510	157762813	147371178	146050298
40	147539023	157259399	154394473	156369740
41	156350955	156869947	132784826	147535111
42	131217048	156707820	142901089	147660511
43	148244552	164787443	156702469	156111537
44	148920018	154762148	147217991	149774210
45	147757275	155765999	157755197	146854313
46	148188713	156457658	147818330	156476127
47	155847200	155350450	156984045	146901047
48	163947848	6623940	155323504	148443340
49	148689309	146338899	157343096	148232942
50	148109383	153145559	156355777	156132634

BCAP 2007-AA3 (Group 1)
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	157429564	157573163	156491797	157838095
2	157841768	71366017	156808362	157253584
3	157671447	71672661	69935625	157211301
4	157675927	157542382	71894646	156276917
5	72234123	69754679	157482068	157675562
6	71657308	71770473	157375981	71633655
7	157669482	70784392	157767104	72158231
8	157676131	71947063	71499008	70655626
9	157211657	66569476	71693931	156480121
10	71741318	72170137	71888242	157244351
11	157395864	156917106	157676081	157230368
12	157672452	154889216	71762785	71958854

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
13	157165028	72413594	71748412	157771817
14	155248545	158086629	157166398	72095821
15	70575949	71992705	72904683	71913263
16	71660005	157344904	156935801	71380034
17	71072342	157280397	155378201	157595638
18	71446637	156583759	157169459	71973754
19	72707367	72291891	157438995	157765611
20	157567777	157401696	157960741	71492615
21	71480446	157870197	72395858	157027236
22	71591325	156539843	71488985	156008062
23	156504151	157172958	72037575	157523267
24	72290125	157815416	72347149	68849546
25	157211087	157172933	157490178	72214695

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	71547459	72263676	71185102	157734062
27	69804763	156461006	72596976	72005101
28	72497829	71486039	157719618	71562235
29	157210105	156102568	157674003	71980312
30	69973303	157205394	68978188	156684441
31	157172271	72421597	157513821	71037469
32	70883269	72243629	157196882	157257445
33	157667775	71547756	70051073	72027469
34	71803241	156897134	157170879	152666681
35	156577793	157670134	157706524	156914137
36	71718845	156672289	72510019	157876442
37	158102418	68575497	71317515	157216052
38	157085648	72604648	72146731	70267745
39	65964835	69087161	157670928	69466837
40	157674995	157956491	72723513	156207318
41	157713769	157699117	157170572	156118168
42	157693292	72315286	72511496	70081773
43	72667074	71950158	156794455	72171101
44	71775316	157667809	71096374	70889134
45	158046581	157531948	71760805	156773707
46	72106016	157165739	72001688	72218332
47	72347974	156836272	157681693	156684599
48	68868389	71857502	157241498	156485484

49	157668518	61581781	49537913	157444407
50	157842485	65939191	157212192	71400774

BCAP 2007-AA3 (Group 2)
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	158514270	149054639	149375488	149819087
2	155748900	147006044	149343556	149445328
3	147214127	157690065	152753180	113568165
4	158698721	163458833	148312992	148048367
5	147915735	149366847	158610929	148896391
6	148419897	163522512	159270261	164726896
7	159114681	159323819	164438946	127795872
8	163476867	156774844	148315729	147217767
9	148748349	164497652	159298749	148949510
10	149204722	159265612	148626533	131693075
11	163549796	148866604	159328195	149478157
12	158828409	158680363	115740259	155215552
13	148555002	159243226	158124286	148993648
14	148862651	163475675	148154588	158781441
15	149234694	148971353	164371606	133358910
16	149294173	148583960	165048426	149101941
17	152460536	156277270	164236930	149589322
18	154978126	159555117	148787554	148892767
19	156111303	153024383	157136281	153712106
20	133368080	156704102	164353474	158680371
21	147897908	142544611	163966159	149611325
22	163457553	155393287	149452697	148784401
23	149901442	149708233	158814491	159158610
24	164703696	122889979	165371136	158281953
25	159127477	163390720	149781827	148949174

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	165978330	148346293	157106243	149406099
27	159493965	149785611	164674068	164920144
28	157975116	157255063	158345242	148263842
29	149143891	164362973	165165864	159429485
30	157665967	148305943	148785953	157082493
31	158280276	154867970	150001775	164518638

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
32	147932033	149124568	158502888	8600105
33	148833255	148929051	164643991	149139722
34	165310329	158420960	151929030	164588544
35	107995651	148346693	159331164	156103493
36	158605102	159476355	158881933	149104702
37	148289053	149372655	149249360	159307099
38	150447996	158616722	149642729	156164529
39	157825853	149397850	118644637	149219508
40	149615846	149781627	152398795	159113682
41	158676528	149790852	149201914	164657868
42	159282707	164446827	166049603	158830761
43	157914444	164963469	158858504	149408516
44	164341626	133710953	7519965	148462126
45	165492519	149222116	149236022	158870970
46	164326391	148556714	148878341	163388236
47	148990887	149892624	158240221	149854460
48	149665324	163515182	158402124	148945445
49	164785650	149526779	157528102	164879624
50	148428242	120239235	164249220	164563884

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Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	3000188368	5000217659	5000216821	3000201445
2	5000218115	5000224578	3000234375	3000192444
3	3000091340	7000208499	8000095315	3000218251
4	5000226181	7000210450	6000239439	3000238950
5	8000093580	3000180224	3000276593	3000226002
6	5000210806	3000201979	7000211936	6000240431
7	7000187756	5000226263	3000254893	7000210645
8	7000211369	6000237845	3000235764	6000240589
9	5000222592	6000238642	8000094201	6000242711
10	6000243513	3000205472	8000092876	3000199840
11	8000092641	7000210524	8000095135	8000093059
12	3000206601	3000242182	3000249920	3000242638
13	3000029775	6000240118	7000207213	6000238337
14	8000097540	3000232954	5000226673	3000231840
15	1000318912	5000222123	6000243141	6000239739
16	8000094285	6000243314	7000209216	6000241403

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
17	7000207185	3000232932	3000234649	5000226227
18	8000097334	5000220524	5000225920	8000095007
19	3000209648	7000209375	3000225717	5000224249
20	3000091772	8000096893	6000240341	5000225872
21	6000239975	7000209388	6000241843	1000324558
22	5000221317	3000229367	5000215190	6000233617
23	5000226447	7000208708	3000183158	6000240902
24	6000237131	8000095893	7000208202	3000214645
25	3000214792	6000238622	6000240837	7000209633

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	3000162437	3000194834	7000206530	6000238741
27	6000220192	7000211665	5000220505	3000210004
28	3000228264	7000208321	6000235219	5000223846
29	5000217544	1000315571	3000256748	3000200956
30	3000194333	8000085559	3000181156	6000236414
31	6000238137	7000188068	3000216044	5000226007
32	3000230213	3000172360	7000210563	6000237577
33	6000224572	8000097187	3000238131	5000222971
34	6000236930	7000209710	3000271521	6000239998
35	6000237077	3000215258	8000096685	3000207544
36	5000219941	7000211661	7000206698	6000225517
37	7000209961	6000241824	5000221738	6000237445
38	6000223406	1000324218	7000208636	6000242271
39	8000096749	3000211174	6000240297	3000181895
40	6000240013	8000096791	3000186652	3000231065
41	1000323358	3000252016	3000174614	5000224125
42	6000242914	6000215601	5000221114	3000217557
43	8000095157	6000241838	6000237425	3000213198
44	5000216601	3000238836	5000225429	6000235169
45	5000213705	1000323258	5000217396	7000208532
46	8000095742	3000217682	3000167591	8000095292
47	8000076784	3000254520	5000221653	3000177822
48	6000241092	1000322908	6000241901	1000322588
49	6000239843	3000274329	8000094478	3000258922
50	3000197655	7000208800	8000097459	3000136504

SABR 2006-HE2

Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	4002216021	1000313108	1007859383	1007825856
2	2000876755	8000083904	3000041429	1007812682
3	4002262707	1007579462	5000208929	5000143540
4	7000192421	8000086369	7000193790	1007311303
5	6000215108	2000864435	1000252049	1007238857
6	1000255466	1007483975	1007915660	6000214331
7	1007618580	1007318477	1007909169	3000006881
8	1007328082	1007331103	8000083942	1007321052
9	1007650892	6000213707	8000080716	1007398559
10	8000084724	7000193397	8000084038	4002265830
11	1007876845	1007266264	1007502570	1007904743
12	1007306523	1007544428	6000217344	6000161831
13	1000314297	1007561319	1007918168	1000306078
14	7000194461	1007812156	1007399996	1007332987
15	1007498059	1008100770	1007144823	6000215731
16	1007915278	8000082614	3000023508	3000020890
17	3000035637	2000882381	6000211872	6000215500
18	7000192618	2000877414	4002084102	1000253145
19	1007264845	4002177243	5000207897	1007645373
20	1007563905	4002204661	1008031505	3000047835
21	6000213896	1007361080	1007768418	7000190481
22	2000881545	3000027476	1007736943	3000058793
23	1007582485	1006954673	4002265664	1007480488
24	6000217098	3000026395	7000194508	2000881822
25	7000187943	7000188828	7000194209	7000191074

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	1007556307	4002257307	5000203739	3000047653
27	6000219436	3000044627	1007513657	2000883284
28	6000216976	1007972321	1007467305	8000081931
29	1007573137	8000084247	7000192277	8000083401
30	1007785131	1007441789	1000315593	3000068977
31	6000214376	1007460507	5000205395	3000043318
32	1007567812	1006895871	1000315530	7000192687
33	1007982560	1007212045	1000314185	1008061358
34	6000211656	8000082384	5000206817	3000038630

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	1000311224	1007337465	1007463032	2000883381
36	1006971191	8000084331	1007192655	7000190387
37	6000217703	1007823581	7000191666	1008005936
38	1007326814	3000082316	7000190565	1007368109
39	1008013080	7000001348	8000084112	1000308698
40	1007540235	1007184619	3000053801	3000032678
41	3000053936	1007260457	1007968951	1007709740
42	5000205832	4002234906	1007800891	4002203166
43	5000202954	1007684927	6000212231	4002157047
44	1007569455	1006941875	5000205296	1007464852
45	6000213349	1007336331	1007476000	1007207122
46	1007980367	1007449077	1007870486	3000016246
47	8000081687	1007520015	3000077945	6000217904
48	1000312853	1007575322	6000218232	1008025807
49	1007869425	3000044422	5000201735	6000215231
50	7000193354	7000191904	1007355658	1007456139

WFHET 2006-3
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	155724842	156393043	155895352	155937683
2	153907977	156306375	155841778	156057135
3	155741143	156078149	154451363	156092694
4	155648819	154679187	155120066	156311078
5	153347554	155804479	155264161	155961303
6	155973084	156130965	155389372	154852883
7	155815319	155609555	156090086	156130759
8	155685902	155888175	155974017	156074247
9	154610125	156248296	153522446	156109258
10	156427833	156152316	151822871	155780497
11	155494586	155736739	156375651	156309312
12	155285877	155462336	156027187	155956311
13	155671555	155887441	156422917	155680499
14	155321409	155906332	155789134	155825912
15	155748387	154922058	156473514	153683735
16	155270101	156011017	156090953	155737505
17	156142903	156088007	155066343	155859341
18	155639016	155827785	156066268	155676778
19	155418882	156082539	155807746	156460412

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	154055198	155456585	156429409	155682644
21	155867906	156304305	155306962	156035123
22	156309338	156330581	156373243	155230055
23	155750169	152572418	155451131	155629603
24	155606643	156097677	155679376	155889991
25	155676042	155706534	155794258	156142671

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	155691751	155334279	155888795	153964572
27	156409823	156403636	156125957	155601024
28	155539703	155658552	155748676	155529852
29	155224942	155877723	154834881	155877194
30	155814692	156438418	155507502	155345465
31	155343148	154598783	156055568	155436546
32	155878325	156159717	153869599	155279615
33	156008054	155462195	156518193	156022964
34	156644148	156477085	156413197	156170417
35	155660756	154380075	156208563	155236169
36	155232796	156779332	156484446	154461628
37	153211529	153733282	155097876	155860919
38	154305262	155961063	155893209	156415457
39	155731417	156409187	155155229	155847353
40	154072557	155196736	156005738	155700297
41	155829252	153463484	156036816	154827687
42	156381543	156253171	156202962	155792161
43	156549859	156327595	154332191	156336919
44	156240269	156556938	155889876	155505803
45	155939101	155774839	153088836	155388622
46	155781974	156117301	156332272	153513734
47	155531098	156370835	156125122	155649973
48	154795348	155786569	156367948	156008393
49	153735071	155736267	156002362	155744741
50	155562556	155889983	155510704	156049462

WFHET 2007-1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	157552043	157164864	157720038	157245952

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
2	157799966	157775305	158074872	155240997
3	158265413	157943424	157692757	157840075
4	157499823	157193772	157175787	157515479
5	157810177	157632084	157935271	157538133
6	157915539	157178385	157767567	157959537
7	157031402	157844598	158050575	157435033
8	156588618	157941659	158026948	157636465
9	157691759	156966285	158052852	157845462
10	158028886	157981978	157687641	157430224
11	157521535	157819988	157601923	157768987
12	157483397	157621467	157975665	157054305
13	157595687	157824434	157754383	157832304
14	157210279	157653445	157686965	157808213
15	157624883	157040353	157968439	157921032
16	157855198	157331471	157691676	157919226
17	156064107	157882598	157835471	157653858
18	157081886	156499626	157955667	156894081
19	157853904	157847609	158191635	157612615
20	157760901	157975913	157538034	157840133
21	157680414	157804576	157047861	157941667
22	157466384	157719287	157996984	157120916
23	157619651	157835976	157635319	158197483
24	157606104	157609298	157774027	156275414
25	157729492	157534298	158126441	157780453

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	157236399	157964339	157102203	156910341
27	157703182	157783523	157773359	157421116
28	157359605	157813072	156972929	158080606
29	157624016	157711292	157415555	154958292
30	157784653	157793324	158168195	157245531
31	157998733	157381336	157596842	157798588
32	157783143	157660705	158074583	156675902
33	157931577	158132563	157633827	153881248
34	157495284	157365594	157077033	157552381
35	157665472	157792904	157732322	157807686
36	157920141	157885971	157611971	156482424
37	157491044	157399882	157791716	157357153

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
38	157589268	157624313	157364019	157881723
39	157954157	157900036	157211251	157947391
40	157406117	156347247	157833351	158044719
41	158045179	157008939	157956384	157859075
42	157380841	157818485	157848185	157888934
43	157075581	157772815	157464603	157837584
44	157867664	157834516	157019373	157358755
45	157253352	157716234	157333006	157673021
46	158113993	156801789	157654179	156770323
47	157214297	156998304	157870858	157810011
48	157589136	157634635	154036099	157249459
49	157101965	157886656	157759325	157758426
50	157850025	157449489	157913104	157552712

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Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	500745741	700329153	700329280	500745406
2	700344457	407992784	408381507	408381347
3	700286799	408191694	407992856	500740099
4	500706092	407992785	700322372	408381531
5	500746388	700306994	408381461	700322231
6	700329300	407992847	500773403	408381832
7	408191939	500727851	500775362	407940960
8	407800838	500742001	407171154	500715730
9	500734724	408191908	408191892	500726919
10	407170796	700282514	408381760	500762571
11	700329032	500743043	500729001	500755733
12	407992421	407590037	407170961	407992903
13	500720437	700339210	700274505	500774140
14	500750712	407590017	500753256	700322100
15	500731123	500742096	700336777	700258817
16	500742617	500725078	500721859	700325232
17	407992576	500747656	700330458	407992485
18	407992713	407992507	407992839	500703063
19	500726923	500717633	407992673	407590064
20	700319728	700307127	500706794	700315739
21	500754904	408381868	500745783	407992731
22	407992710	700331555	408191709	408191832
23	500739386	700334122	407992725	500754022
24	500720413	500693477	500750414	407992440
25	500732145	408191845	408381617	500753830

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	500776154	700324678	500754873	408381588
27	407170995	500754635	700297689	500720442
28	700303658	500740815	500736798	500731164
29	407992742	407590083	500750656	500724906
30	408191875	407992880	407171116	408381528
31	500749524	408191799	407992791	500772982

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
32	500740071	500747856	407265794	407992707
33	500730040	500733231	407262813	407590129
34	700266651	500684580	500746321	500763506
35	407992830	700318262	408381506	408381794
36	700324679	500750377	500519473	500775529
37	407170871	500756242	500773211	500758894
38	500722360	500693820	500750362	407992887
39	408191804	500763831	500713415	500744327
40	500734388	500748250	500650571	408191817
41	407992456	407992461	408381423	500731030
42	407171107	408381696	408381591	408381613
43	407170866	500714740	500743036	408381841
44	500729446	408191851	500724058	500720990
45	408191784	500753431	700245698	700315730
46	500694559	500750061	700346784	700330986
47	500732872	500747210	408381358	407992439
48	408191989	408191744	700308199	407590091
49	500772232	700319237	407992401	700329600
50	500741195	500760518	407992851	408381502

ARMT 2007-1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	700486449	700271886	410117723	700476757
2	700498521	410621750	700499548	410621843
3	700354938	500828040	500751599	405939083
4	410057485	500755128	700460460	410116872
5	500855479	700486769	700499779	700424476
6	410621802	700335169	500832287	700352327
7	410621833	700413054	500878950	500761461
8	500885931	409833565	700498930	410117698
9	700447620	500797216	410117746	700501021
10	408879558	700432078	700459544	410057532
11	500886692	700479433	700415180	500903632
12	410621861	700359471	700479511	408510028
13	500811670	408879572	700483123	408510034
14	500878160	700478791	700474290	500827667
15	500901607	500858038	409263652	500861280
16	500874726	700463119	700483593	700489008

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
17	500817491	500804217	410621680	700352948
18	700391858	700429529	700475043	500858050
19	410621856	410621862	700480426	500897053
20	700349488	700492895	700442625	405939160
21	410117751	410239175	408846536	408879534
22	500858053	408879628	500861119	700458192
23	700406062	700484981	408879520	409263617
24	500879386	500806866	409650686	410388452
25	500836829	700451135	408509993	500851093

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	410117797	700344015	700498223	700486889
27	500834502	700446972	500888652	500855248
28	410621766	700463049	500922357	500849664
29	700450920	500892730	500882473	500855856
30	500837091	500851236	408510018	410638606
31	700475591	700491530	700481951	500883240
32	500882965	500837166	700498393	500872416
33	500919646	500859525	410169355	700498671
34	409263699	408509902	408879567	410645016
35	500872149	700494402	500811586	700466668
36	700473802	700440725	700483168	500883691
37	408196847	410621819	700416839	700442766
38	500853444	410621681	700410666	410638742
39	500878257	700473137	500781196	408509911
40	500825443	500817241	700483917	500851682
41	700456619	410169350	500892555	700410577
42	700466756	700472576	700403012	500863997
43	500874978	500886424	409263640	409263701
44	700446832	410117675	410116835	405234930
45	700439594	408510055	500910243	700466333
46	409360273	700500557	410282214	405939070
47	700466147	700454390	700495526	500850433
48	700377873	700402523	500830295	500877686
49	500800821	700493754	700422220	500918150
50	700451199	700447177	405939059	500770082

ARMT 2007-2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	700517331	500934364	411005572	411046288
2	500889293	700494724	500925173	411914415
3	500866699	411914434	700503038	500943593
4	500893008	411023075	411551973	700516859
5	700510747	700507685	700507366	500944405
6	411419040	500824799	700506613	500940656
7	500900953	500915629	411914427	411023047
8	700483404	500938105	500933763	700512276
9	411551976	500942731	500950201	700435823
10	411108576	500917988	411023041	500943103
11	500937483	411452731	411629531	411914399
12	500937162	500924585	410239103	411452685
13	411551882	411452716	700505413	700515449
14	500896965	500917584	411023079	410117830
15	500871395	500856675	500943336	411535719
16	411023086	500902231	500912901	500925207
17	500880034	500915873	411023107	410677664
18	411629512	411914360	700401932	411552012
19	500907777	700503948	411914352	700495077
20	500892357	411784384	500923391	500925085
21	500900307	411419062	500917573	411551953
22	500937534	500931562	500906745	500919237
23	500899542	411551946	700512518	500906112
24	700507909	500913516	411761404	500956596
25	500911346	500908592	500944996	500915825

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	410543585	500902983	700463777	700499803
27	700505628	500933428	411285597	500958225
28	411551910	411618216	500927217	500928947
29	500911143	700487065	500859996	500842809
30	700508719	700518999	408846574	411023088
31	500906893	500931561	700516540	500922366
32	500815177	700520751	411023023	500926412
33	700498621	411535573	700519035	411551874
34	700493088	411005547	500951685	411023038

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	700479920	411452734	500944555	411784365
36	500907977	500904461	700499936	411108515
37	500900870	700518857	500923115	500916289
38	411419052	411108526	411914368	411452729
39	500926261	411914347	411285610	411551963
40	500915645	411285589	700497880	500893068
41	500953105	411551942	700518208	411023109
42	411784379	700485117	411419054	500931481
43	411536787	500898925	500922484	500901623
44	403539941	700514942	700517932	411551955
45	411551998	500950636	500909860	700488517
46	411452672	500947786	500919672	411551996
47	500921529	700500324	500918081	700504613
48	700514905	500902606	700502692	411551901
49	500891257	411452727	500925215	411452690
50	411629563	411551914	500899674	500933426

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Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	407805535	407607048	407274043	407805581
2	407582840	407609226	407546780	500732445
3	407605756	407582537	500750003	407806085
4	407608434	407497118	407607104	407837973
5	407582642	407882648	407805884	407607892
6	407805892	407557400	407607210	500713937
7	407621259	407882797	407502884	407607051
8	407607071	407198810	407534569	407607092
9	407906995	407607927	405358373	407589380
10	407607335	408161251	407501745	408152457
11	407805863	407621153	408152840	407838072
12	407608165	407273996	407805585	407599354
13	407805823	407599219	407199255	407838113
14	407557891	407582605	407608745	407725271
15	407556944	407185746	407276035	407599308
16	407882653	500714042	407608358	407805651
17	407608651	407883134	407605746	407883140
18	407608627	407199383	500712200	407606933
19	407599286	407198193	407411606	407607500

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	407606071	407621140	407607743	407607941
21	407607834	407607666	408193223	407805897
22	407582305	407608111	407606043	407384383
23	407607344	407613335	407281350	407607246
24	407608684	407296235	407607010	407608729
25	407582327	407805474	407481649	408152314

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	407607271	407534625	407608637	407607732
27	407448706	407605871	407621370	407607011
28	407605771	407609066	407606788	407805853
29	407582553	408152608	407805933	407725407
30	407599269	407605530	407582609	407296109
31	407883039	407882939	407296243	407607990
32	407582280	407609057	408142321	407608969
33	407582422	408193260	407607627	407281187
34	407582287	407606049	407607159	408152491
35	407805795	500763935	407725340	407621312
36	407883358	407608003	407608647	407281393
37	407606076	407607140	407805768	407805807
38	407805774	407542088	407582694	407607696
39	406917399	407557677	407606825	407805501
40	407582307	407605822	407882695	407607045
41	407608171	407608792	407805766	407607671
42	407882689	407607280	407534652	407607283
43	407607526	407582608	407605869	407607097
44	407805843	407599365	407725261	407605834
45	407566452	407605916	407607750	407607187
46	407608368	407607460	408193052	407606929
47	407605987	407501809	407281145	407607422
48	407582596	407882805	406917030	407606969
49	407605948	407607276	407607545	407606874
50	407605814	407607906	407882833	407582383

HEMT 2006-2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	405306624	500542037	405216423	405309977
2	405260645	407001825	405388579	406502516
3	500600355	405568860	405592198	405230609
4	403014081	405568859	405234781	405450897
5	403014027	500665988	500599872	500585157
6	500507324	403014030	500606828	406502333
7	500676848	403782793	406502646	500595427
8	405565478	405451341	406502037	500618348
9	405388783	406502014	500607273	405383423
10	500667282	500619566	405234889	500708471
11	405788627	405450824	406502253	406334597
12	500576822	405309954	500555214	500618383
13	500610890	405388609	405450893	405592221
14	500714299	406502427	405234878	406502455
15	405357077	500577234	500641592	405687427
16	405388943	405309979	500626319	405388610
17	500625652	405234891	406502198	406501950
18	405428765	406090993	500573187	405234774
19	406091067	405309966	405234786	405388541
20	405260138	405260412	405234906	406502460
21	405388761	500605347	500583534	405687408
22	405260089	405260518	405171699	500583766
23	500619132	405687426	405451229	406502597
24	405788897	405568858	405306596	405216390
25	500679957	500684934	406334583	406502562

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	405788855	500572045	406502513	500648726
27	500647368	500693002	500553526	406502629
28	405260139	406502430	405216369	500523436
29	405346872	406502007	405260953	500587943
30	405788046	500496806	406502543	406502570
31	500693081	405415862	405388940	405592215
32	500710457	405306609	406951917	500630005
33	405260623	500590719	405592170	406502058
34	406091053	405592267	500548755	405346589

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	500548049	500531714	405388724	500694396
36	500653452	406502639	500524649	406502286
37	500577229	403782841	405260994	405346864
38	405451050	405346591	500681369	405388551
39	405234887	500549932	405450793	406502457
40	405306633	405234814	405451246	405450912
41	405788660	500683374	500633830	406502042
42	500676813	500614228	405234893	406502062
43	405450275	500648961	500537171	406502231
44	405260785	406501899	405234745	500652749
45	405388556	405388922	405216362	500563103
46	406334595	500684937	405383429	405388780
47	500651844	500649203	405388985	500673586
48	405451221	405234749	406502224	406951920
49	405260610	406091038	406502627	500615807
50	405259978	405565481	500566217	405383363

HEMT 2007-2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	410200415	500921247	700494419	409934203
2	410200142	410198062	411329874	700457909
3	410200082	500873440	408417744	700491580
4	500911572	700456659	500935501	408942907
5	409277269	410198680	700465842	408942996
6	500944221	500920909	411053696	700470896
7	410034536	500922373	500889751	500921290
8	410977495	500874062	409734237	410026740
9	500916160	700444680	410034318	410026754
10	408867847	500908657	410026455	409899580
11	411053631	410199693	408904176	700437502
12	500919621	410200073	411401734	411048624
13	410197371	409189229	410977049	409308229
14	411401453	409933993	410147317	409308276
15	410200442	410977101	700495310	700516599
16	409899600	700469485	409985341	409985468
17	409306730	409933822	410228722	410034580
18	410198946	700465095	500899863	700499518
19	411485796	410200141	410026171	410026160

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	411401815	410050072	500881547	410977173
21	410977365	410199669	410977441	700516172
22	410199368	410228641	410063203	409933892
23	410977535	700502128	410034389	500875458
24	410579254	500937402	410034300	700441002
25	409839965	410768595	410198297	411485815

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	409945522	410228813	500879617	700458202
27	410229111	410062816	410197036	500921214
28	410199483	500877617	500889213	700507863
29	410063163	500918219	408943002	700483188
30	409945543	410448872	500884694	500891538
31	409485169	409934046	700455350	410050512
32	409479543	410977090	410050088	700500733
33	410199650	410579309	500921284	411053760
34	408785825	700418600	410200474	411053686
35	500941111	500907810	500900730	410984531
36	410167078	409484875	410199979	500902099
37	409484760	410197123	409985372	700461725
38	700479246	410057243	500921474	410051201
39	410579114	410200212	410062715	410197086
40	410199604	410394961	500911458	500921202
41	410034687	409479620	410063081	409338991
42	409945369	409484690	410228744	700500816
43	410199056	410197563	500884563	409934268
44	409865101	409277429	409297093	700485021
45	410196689	700430147	700511762	500919240
46	410198484	410050402	500889990	700512515
47	410167041	408942975	500933585	500918946
48	409484971	500879269	500948251	409865091
49	409395138	410228497	409277221	411329867
50	407788491	410228343	410791681	410026154

LBMLT 2006-1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	6637693	6616025	6631776	6603136

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
2	6639733	6639606	6636225	6642511
3	6621118	6614865	6592327	6637409
4	6622983	6622232	6615127	6610541
5	6609007	6635752	6626432	6628215
6	6621517	6629954	6617045	6624537
7	6615429	6644128	6626265	6605060
8	6618089	6632063	6625644	6635860
9	6632130	6631325	6636064	6617439
10	6612399	6601167	6621724	6646432
11	6639985	6631589	6635002	6643183
12	6636966	6626427	6620482	6619800
13	6624841	6635821	6629558	6638214
14	6622992	6634388	6625755	6633092
15	6614217	6637683	6627548	6639063
16	6629866	6642944	6617377	6642741
17	6649094	6642547	6637883	6626203
18	6633502	6628810	6605525	6628239
19	6627845	6631601	6619774	6628219
20	6636066	6647628	6615384	6624017
21	6641049	6617909	6628837	6637748
22	6643819	6629204	6618917	6626489
23	6616990	6626522	6638274	6617625
24	6631973	6625425	6618625	6611154
25	6616307	6605550	6638540	6604383

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	6645833	6619401	6631043	6623831
27	6618385	6602715	6632883	6635667
28	6631651	6620816	6640485	6633417
29	6637178	6619265	6631452	6636783
30	6640387	6622308	6633371	6631998
31	6628407	6638716	6604040	6615165
32	6619970	6624208	6651490	6596461
33	6623359	6622827	6620308	6632842
34	6625828	6616707	6587013	6610714
35	6629021	6635465	6634891	6632949
36	6628420	6642201	6638079	6626895
37	6623403	6640723	6629203	6626396

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
38	6623644	6611372	6639937	6635573
39	6607491	6631556	6625862	6637524
40	6614744	6630685	6651838	6643821
41	6611693	6648832	6636427	6646621
42	6624113	6620947	6627313	6629193
43	6634416	6632791	6630480	6643067
44	6638940	6613095	6628741	6631725
45	6628782	6629153	6601774	6606068
46	6631809	6616215	6623971	6621626
47	6634633	6613970	6631555	6653337
48	6616532	6583218	6599581	6632390
49	6602881	6615760	6619626	6620476
50	6630260	6609732	6638826	6632137

LBMLT 2006-6
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	6742815	6737197	6724154	6745827
2	6735951	6719494	6741000	6733746
3	6738637	6725214	6736400	6744241
4	6713826	6737393	6692657	6743705
5	6729049	6728025	6736564	6740870
6	6750075	6730021	6729362	6743626
7	6734450	6741113	6718825	6745763
8	6726345	6729386	6725563	6737910
9	6722406	6742237	6726206	6741322
10	6731889	6730587	6728007	6733825
11	6733181	6732835	6728219	6737511
12	6743926	6724194	6739321	6738125
13	6734638	6733382	6730154	6732285
14	6743807	6736324	6735407	6721209
15	6735913	6735119	6732283	6731741
16	6729726	6725544	6730826	6724793
17	6742607	6722393	6736177	6739485
18	6735065	6733852	6733936	6743261
19	6728869	6726556	6733633	6714825
20	6696628	6736500	6738340	6718871
21	6745746	6735681	6723729	6742324
22	6725285	6738184	6734600	6733738

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
23	6721347	6733372	6738329	6732147
24	6729571	6737045	6733519	6715754
25	6737221	6745467	6733991	6725776

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	6732810	6721732	6727526	6707740
27	6727153	6729327	6716726	6734049
28	6727515	6731501	729317834	6747482
29	6726237	6718952	6738484	6744104
30	6740666	6728263	6737465	6721901
31	6742245	6728180	6718074	6731206
32	6738444	6733773	6742380	6731689
33	6733398	6732764	6728390	6727868
34	6737449	6728315	6720954	6744221
35	6740318	6727789	6735894	6722750
36	6712932	6740657	6730889	6736296
37	6742809	6741096	6741929	6739626
38	6738617	6743463	6731459	6740221
39	6731147	6737199	6721405	6738467
40	6729948	6738951	6733052	6730303
41	6727127	6739154	6696469	6727426
42	6732169	6725803	6741765	729318147
43	6731420	6725705	6728509	6735938
44	6732080	6737152	6736633	6729346
45	6723079	6719484	6729617	6727593
46	6736830	6742289	6742000	6721737
47	6733752	6731447	6732231	6740721
48	6732450	6734630	6701960	6728543
49	6730423	6735984	6734877	6742906
50	6735482	729314708	6736501	6720398

RALI 2006-QA9
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	10917663	10988929	10912773	11012061
2	10945795	10912743	10655124	10862423
3	10594270	10945199	10676928	10912649
4	10952127	10426323	10945583	10912551

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
5	10945773	10943655	10912691	10945609
6	10627818	10907389	10945299	10981687
7	10946023	10912643	10945515	10968525
8	10945297	10945503	10960777	10945309
9	10907391	10945915	10929153	10979495
10	10947061	10958023	10933803	10912523
11	10945541	10627828	10912625	10947311
12	10655326	10945627	10988979	10627898
13	10627924	10655206	10655064	10912429
14	10945439	10945605	10655114	10627906
15	10945883	10892821	10945907	10945939
16	10945869	10945043	10993491	10655068
17	10627848	10938951	10998715	10938985
18	10883307	10655116	10954279	10980617
19	10988399	10627932	10862515	10676890
20	10945347	10655222	10917669	10954857
21	10873847	10763105	10920327	10988887
22	10918159	10655320	10945937	10943491
23	10943941	10954683	10627870	10912513
24	10912803	9996560	10945539	10945049
25	10627786	10655102	11001447	10912487

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	10985073	11012245	11001237	10912405
27	10970331	11011835	10945155	10944509
28	10912699	10945191	10982993	10960809
29	10627846	10763341	10953997	10945893
30	11016175	10627766	10945455	10878775
31	10946013	10627836	11006979	10974789
32	10945147	10912761	10945207	10985057
33	10957367	10655088	10945821	10945665
34	10909341	10763435	10945229	10912519
35	10929469	10945729	11001105	10919883
36	10945595	10945167	10945807	10983177
37	10945435	11001483	10991331	10945743
38	10945173	10627792	10991535	10655324
39	10954453	10627926	10945909	10681100
40	10945247	10919845	10655134	10945507

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
41	10915699	10988815	11001017	10945269
42	10950017	10989031	11011939	10828853
43	10984005	10945399	10917665	10912595
44	10856307	10998319	10985265	10945745
45	10982505	10627844	10929317	10945987
46	10837629	10945351	10945567	10945075
47	10627894	10907291	10988965	10945437
48	10945537	10990091	10968777	10945797
49	10945551	10945783	10912789	10956579
50	10852937	10945833	11001337	10655196

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GSAA 2007-3

Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	5778037	6601652	6665508	6410224
2	6410036	6191363	6410218	6651307
3	6678329	6410078	6190653	6678224
4	4903074	6601711	6601948	6409953
5	6653513	6405348	6409915	6410131
6	6597435	6409834	6651932	6589077
7	5626560	6528692	6191256	6678249
8	6192220	6601959	6414715	4810497
9	4813803	6409950	6414697	6414648
10	6190766	6528791	6192819	6407108
11	6528826	6410261	6528364	6601489
12	6653269	6601809	6528971	6601722
13	6597438	6414634	6409998	6601735
14	6651292	6651925	6191449	6665488
15	6528367	6191512	6651471	6409891
16	5071704	6602035	6410159	6651954
17	6601931	6500461	6651422	5928557
18	6601376	6528466	6191418	6407118
19	6601653	6528903	6523160	6500237
20	6601608	6410067	6406974	6651391
21	6528743	6653078	6665551	6190793
22	6601913	6410244	6602023	6410087
23	6414696	6414630	6601229	6191439
24	6653439	6601382	6528667	6410252
25	6651466	6410084	6407052	6665523

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	6597413	6409918	6653421	6528706
27	5777798	6528509	6601324	6601611
28	6405267	6678270	6410008	6407095
29	6528703	6678303	6190764	6192226
30	6601281	6653298	6653409	6528533
31	6601552	6193003	6500156	6191452
32	6529042	6601258	6409849	6407074

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
33	6601404	6191443	6409877	6528904
34	6528570	6653171	5810752	6528853
35	6192837	6651358	6406961	6601865
36	6190611	4902900	6191226	6409889
37	6528526	6410089	6523216	6601957
38	6601353	6409968	6409980	6601826
39	6653503	6500551	6414707	6528717
40	6601816	6528579	6407117	6601825
41	6601413	6405271	6601469	6528809
42	6651935	6193181	6528751	6410072
43	6528525	5505682	6500463	6410156
44	6409912	6409916	6651930	6407119
45	6601389	6193064	6409963	6601951
46	6653550	6653360	6665522	6193178
47	5778135	5727986	6601572	6407914
48	6601649	6409925	6653661	6405349
49	6601907	6500462	6525269	6191262
50	6678155	6530243	6601925	6601292

GSAA 2007-5
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	5770638	6842228	6680800	6845756
2	6842105	6846451	6839866	6681496
3	6830378	6842381	6191338	6193193
4	6678776	6839150	6700289	6682483
5	5792019	6839842	6841973	6665134
6	6680250	6615096	6843768	6681519
7	6678740	6839903	6842004	6680281
8	6587614	6839287	6842143	6843785
9	6106511	6682400	6839119	6680306
10	6839989	6793951	6839565	6663202
11	6845672	6677971	6839915	6842031
12	6665131	6665159	6842292	6678732
13	6839782	6843594	6843471	6192227
14	6845791	6846212	6839288	6839947
15	6839551	6839170	5975847	6665158
16	6843454	6839256	6665139	6839589
17	6407075	6845641	6845657	6665097

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
18	6839937	6677974	6838919	6839973
19	6663487	6841934	6839950	6840006
20	6106375	6842052	6681508	6846435
21	6839255	6843428	6843746	6839764
22	6842140	6839632	6681532	6839603
23	6106395	6105209	6845794	6663241
24	6682517	6839198	6682307	6680244
25	6615017	6680351	6680797	6839597

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	6192817	6663420	6700275	6681526
27	6500576	6192793	6842288	6109182
28	6839906	6105867	6842071	6846249
29	6842040	6734775	6682284	6842177
30	6192967	6842033	6844583	6839131
31	5784280	6704734	6842077	6839128
32	6615117	6614875	6843677	6707107
33	6926428	6844631	6665095	6191355
34	6843701	6681551	6665170	6845727
35	6704626	6843481	6707021	6846440
36	6953819	6193062	6839852	6500559
37	6830371	6678762	6681501	6843446
38	6845782	6846403	6665186	6681542
39	6839374	6839217	6845752	6407050
40	6663229	6677985	6681699	6839568
41	6682419	6678791	6193079	6682339
42	6615049	6842261	6681692	6663483
43	6678749	6926451	6680765	6839144
44	6830367	6680382	6500533	6665155
45	6614953	6682328	6843742	6793954
46	6682329	6615140	6845725	6704952
47	6615343	6843516	6839648	6706980
48	6191394	6682262	6680379	6839447
49	6680396	6842141	6841951	6682314
50	6700292	6616945	6839339	6839785

LBMLT 2006-7
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	6750709	6762786	6746310	6758673
2	6756061	6746475	6746274	6747392
3	6758871	6735032	6747446	6737469
4	6754068	6745605	6747809	6753533
5	6747120	6745879	6748505	6749948
6	6733800	6752450	6732163	6748196
7	6742796	6752234	6750823	6755623
8	6743623	6735089	6742175	6755710
9	6757073	6746533	6750955	6751122
10	6752960	6742060	6754204	6750270
11	6749563	6751503	6744794	6755440
12	6740952	6744073	6721239	6746753
13	6756640	6683536	6748191	6754129
14	6758808	6757488	6742519	6751306
15	6740732	6745130	6749830	6757325
16	6733960	6750318	6746694	6735954
17	6743553	6747173	6759167	6741798
18	6757090	6750745	6729168	6761094
19	6747122	6762221	6739190	6732242
20	6752735	6747653	6753697	6745376
21	6742855	6743168	6758142	6742275
22	6751893	6752476	6745491	6730596
23	6760114	6756709	6761639	6743491
24	6729352	6736674	6757777	6745664
25	6746354	6748371	6742102	6742420

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	6756617	6753322	6761025	6756101
27	6761949	6743033	6753404	6751653
28	6742652	6754203	6748785	6760195
29	6748983	6734239	6758665	6759415
30	6759385	6753858	6756588	6760501
31	6749239	6742604	6733947	6735100
32	6743896	6748714	6742443	6746889
33	6741217	6743827	6738463	6752864
34	6749290	6747818	6742582	6752544

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	6747022	6756044	6744801	6745463
36	6746508	6695130	6746973	6746890
37	6746809	6752599	6684319	6748616
38	6756409	6741352	6752124	6752438
39	6751958	6746828	6739502	6747108
40	6747672	6750368	6745469	6751305
41	6749421	6756237	6760571	6741176
42	6753280	6757761	6758063	6757652
43	6754344	6751056	6743105	6741936
44	6733339	6743973	6753143	6757157
45	6750506	6753557	6751120	6756702
46	6732945	6740994	6741978	6717198
47	6747323	6757142	6743000	6749325
48	6742752	6746513	6741910	6715213
49	6739027	6745594	6735997	6753016
50	6753429	6745057	6748380	6749519

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MSAC 2006-HE4
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	2010060210530	2050060224840	11454979	11434944
2	1006401725	2030060150700	2350060138330	11447695
3	1006306605	2080060289570	2100060242050	1006402010
4	1006372542	2030060260620	1006494894	2030060156030
5	1006265098	11463495	2200060355750	2070060278670
6	2250060337240	2210060387360	1006278173	2090060301350
7	1006669116	2220060292620	11465675	1006339937
8	11453749	2010060195010	2260060240720	11478136
9	2020060188090	11454278	2210060280780	2320060264450
10	11200673	11433082	11456655	11463291
11	2010060213170	11456962	11460030	2050060223830
12	2030060258820	1006346625	2250060127190	2280060385920
13	11468320	2010060325020	11446985	1006516656
14	11435614	11434670	2030060259110	2010060195820
15	1006347125	1006334273	2010060325660	11464140
16	2260060350760	11463348	11474259	11454470
17	2080060301720	11451280	2320060156620	11452135
18	2080060286530	2050060216860	2060060191550	11467098
19	2250060232420	1006190604	11461437	11438009
20	1006431462	2030060262360	11473357	2010060319500
21	1006263688	2010060187950	11461700	2020060292250
22	1006418511	11461769	2090060296940	2070060275320
23	2250060334720	2280060388400	11427867	11467556
24	2070060169070	2010060206160	2060060194960	11197513
25	11454737	1006912228	11462314	2080060292550

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	11422965	2210060278380	2090060302020	1006336397
27	1006417558	2010060209590	2280060386320	11447072
28	11449875	2010060213180	2030060152120	11459913
29	1006236557	11436592	2260060347160	2260051228660
30	1006334754	1006333960	11450191	11477046
31	2050060224220	1006539668	2070060273970	11432003
32	11451404	2330060285150	11438839	11464717

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
33	2080060182560	2280060390680	11393498	2030060257200
34	2010060194400	1006332033	1006333693	2050060110750
35	11462211	2260060137770	1006457844	2020060182340
36	2330060287900	2330060288890	2020060293140	1006556407
37	11479841	1006315944	2010060321240	2090060297180
38	2070060385150	2260060347610	2010060324020	11381022
39	2290060369970	1006359308	1006143121	11460147
40	1006276166	2020060187510	11438731	11465666
41	11423871	11446448	1006270475	1006348160
42	2320060160250	2010060202590	11461905	11448165
43	2320060263590	11471699	11467232	2250060231400
44	2330060287650	11446516	2020060399330	1006367843
45	1006476066	2050060326850	2330060183600	1006318371
46	1006418888	2360060198240	11440020	11451059
47	2010060212350	2320060263810	1006690690	2060060297230
48	1006084239	11466123	2050060216550	11467188
49	2090060196140	11438391	2030060261390	1006891508
50	2020060293900	2010060296810	11453763	11443298

MSAC 2006-HE6
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	2220060394880	2070060502235	11578866	1007494776
2	2060060516350	2080060515160	1008124978	1008338694
3	2010060455960	11521862	11582955	11548501
4	11588406	1008075441	1008060162	11603149
5	1008203419	2250060547220	1007982864	11589451
6	11489004	1008662100	2010060456130	11576954
7	11487592	11567896	1007953921	11572716
8	1008422815	11585158	2230060507790	11575245
9	1007562489	2230060396090	2090060408090	11407703
10	1008350170	11587715	2280060506080	11559143
11	11581642	11571858	2260060460910	11583754
12	1007550027	2070060502832	11595617	1008454923
13	2010060456930	1008466457	11581948	11601009
14	1008220098	11588712	11581752	1007565636
15	11486307	2080060409850	1007976522	1007587131
16	2070060510170	2010060452640	11577157	11571996
17	1007863458	1008029260	1008046508	11563918

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
18	2290060478210	1008482741	11563622	11595665
19	1007613255	1007992176	2200060356890	11522641
20	1008612575	1007249541	1007994316	11566986
21	2070060505280	2050060549490	11559638	11570981
22	2090060409060	11594861	11547168	11555323
23	1008070071	2260060564260	11544644	2260060460150
24	11471145	2260060458020	11480966	11579369
25	1007656556	2080060515250	2060060516060	11565126

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	1007054439	1008004367	2200060568400	11490662
27	1008609892	2010060453040	2050060334170	1007949535
28	2010060558320	2030060476800	11580500	11570921
29	2210060598260	11582887	1007718428	11575067
30	2020060408170	11545455	2260060457770	11521884
31	1007160412	1008010074	11540130	1008083575
32	2010060192290	2290060477960	2350060136960	11579743
33	11575095	1008328106	2260060564000	11609877
34	1008107880	1007417191	1007532994	1007830500
35	2030060363960	1007896798	2100060239950	11561689
36	1007945762	2320060476720	11570374	1007498291
37	1007611293	2320060578780	1007597656	11552314
38	2010060502091	11576245	2070060504740	1007914475
39	2300060499700	1007519651	2290060588470	1007925999
40	2250060443140	1008683061	1008023514	1008104721
41	2330060401160	11534832	2250060549980	2060060307040
42	2010060449650	2100060555370	1007854547	2260060563500
43	11589278	2350060555030	11572927	11472934
44	2330060402760	2070060401980	11608994	11601771
45	2210060599780	1008021491	1007782946	11577227
46	2280060504830	11575584	2230060401650	11577201
47	11603268	11572123	2230060288810	1007744710
48	1007472040	2010060454660	2230060509720	1008037616
49	2020060512840	2220060509930	1008017157	11596549
50	2080060403970	11563294	2280060501720	2060060401693

MSAC 2006-HE8
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	1008774132	1008945724	2290060587430	1008389282
2	2010060712755	2010060609152	2020060732170	2360060616670
3	1008554940	1009011892	1008119412	1008832640
4	2330060612840	2060060607375	2330060614510	1008907409
5	1008534838	1008538335	2230060623410	1008360515
6	2050060675210	1008603834	2030060694380	1009275517
7	1007115588	2280060508570	2210060714300	1009332457
8	2020060625480	1008677103	1008525571	1008309136
9	1008640740	2070060711244	1008255951	1008897777
10	1008707606	2290060795880	2010060713161	1009347290
11	2050060669680	2220060619080	1008286446	1008153918
12	1008114480	1008644746	1008855116	1009256217
13	1008635685	2070060726530	2080060621530	1007359752
14	1008293143	2050060663240	2280060618590	2290060606916
15	1008336534	1008633687	11579228	1008268572
16	1008578746	1007859196	1008683301	1008648403
17	2030060700860	1009141172	1009249529	1007678836
18	11548950	2020060730350	2350060667000	2220060514470
19	2030060690360	1008208334	11550470	1008596245
20	2060060620300	2320060686950	2290060692100	1008992067
21	2020060516280	2350060768410	2230060711141	1009015665
22	2010060687950	2050060663900	11561379	1008503354
23	1008271808	11573411	1008343937	2280060723110
24	2200060569470	2290060692430	1008375135	1008506547
25	1009003204	1008557661	1009009235	2030060581890

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	1008250545	1009401989	1009015479	2010060608048
27	1008635480	2330060716740	1008577293	11580653
28	1008087349	1008540992	1009156735	1008952127
29	1008678344	11543195	11575446	2230060726590
30	2250060446460	2280060722050	2010060607859	1009049264
31	1008683551	11582021	1008584230	1008582152
32	1008877771	2200060682340	2070060618610	1008465047
33	1009296843	1008585373	2320060683130	1008536630
34	1007751925	2230060511740	2020060520800	1009071327

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	11537254	2090060618670	11600529	2010060689740
36	2050060668760	2080060622460	1008675793	1009348547
37	1008841499	1008401393	2010060693430	2220060618480
38	1008633151	11560962	1008472182	1008714867
39	1009127580	1008750452	2200060785180	1008728139
40	2080060730630	1008797180	1008096017	1008331352
41	1009132164	2280060723630	1008722545	1008629004
42	2030060700660	2260060680310	2260060681980	11587926
43	2280060615730	1008610719	1008557055	1008628112
44	2080060608937	1009002072	1006556602	1008421424
45	1008052224	1008537238	11581032	11581768
46	1006594731	2060060625050	11556142	2350060664980
47	2210060611690	2050060672610	1008642882	2070060729080
48	2230060621420	2070060514060	1008838813	11538364
49	1009151124	2290060481080	2260060678340	1008367983
50	2010060686730	1008091575	1009130683	1008742186

MSAC 2006-NC4
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	1006879130	1006142765	1006795373	1006877775
2	1007130455	1005990047	1005267025	1006652945
3	1006736106	1006928060	1006441148	1006770238
4	1004610040	1006844686	1006610768	1006091356
5	1006276086	1006645712	1006786864	1006816662
6	1006737034	1002734152	1006914636	1006807315
7	1006887719	1006930592	1006094031	1006405641
8	1006596230	1005526558	1006228717	1007218931
9	1006925535	1007249202	1006392673	1006384539
10	1006228655	1006074561	1006162582	1006939539
11	1006712346	1006864967	1007236644	1005358677
12	1004632062	1005519584	1007207417	1006495731
13	1006602740	1006129307	1006748923	1007194699
14	2250033	1006445439	1007218101	1007279143
15	1005731719	1006566334	1006016759	1006134569
16	1006181525	1006805745	1003654094	1006233033
17	1006407596	1005728395	1006558405	1006408201
18	1006881369	1007031972	1006135194	1005726994
19	1006688603	1007319207	1006124703	1006960639

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	1006055270	1006467682	1006256990	1006793375
21	1006968258	1006718992	1007034979	1006231366
22	1006333915	1006848398	1007254516	1006207623
23	1006410010	1006493555	1007001905	1004812714
24	1006655032	1006722638	1006516843	1006160771
25	1006871940	1006372070	1006672479	1006269218

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	1006054930	1006696499	1006477671	1006642617
27	1005604768	1006301664	1006402074	1006234372
28	1007049650	1007334654	1006709181	1006650876
29	1006232640	1006717662	1006233220	1006723370
30	1005884689	1005940379	1006655924	1005624112
31	1005881085	1006527421	1006428582	1006425273
32	1006446526	1006683822	1005992143	1006439419
33	1006878079	1006399612	1006200489	1006784768
34	1006142569	1006680727	1005915325	1005992768
35	1006095860	1006898333	1005801894	1004288915
36	1006134621	1006598746	1006340550	1005370733
37	1006903309	1006394519	1006883465	1004739769
38	1007122721	1006912031	1006402047	1006166944
39	1005921988	1004897035	1006888424	1006788416
40	1007041024	1006798156	1006856976	1005997825
41	1006242112	1006779284	1005642968	1006097733
42	1006241667	1007186840	1006547007	1006560429
43	1005544075	1006917429	1007053145	1006347223
44	1006210619	1006674422	1006948020	1006823958
45	1005723960	1005078159	1006824323	1006784866
46	1006944701	1006627064	1005521214	1006616557
47	1006994452	1006937247	1006418414	1006759117
48	1007109871	1006198795	1006604953	1006164731
49	1006662453	1006392584	1005760358	1006645909
50	1006367530	1005151015	1006196868	1006760098

MSAC 2006-WMC2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	11471743	11467274	11465163	11476122
2	11475373	11522871	11530082	11524465
3	11462038	11454527	11458979	11486180
4	11472130	11510596	11511978	11490536
5	11485627	11511697	11491328	11481442
6	11512474	11489961	11516013	11530085
7	11498134	11518715	11496087	11458071
8	11445192	11488961	11530687	11510968
9	11479247	11477607	11507686	11505452
10	11503283	11498681	11469127	11505698
11	11494108	11499448	11522869	11528397
12	11484674	11484131	11471794	11502492
13	11461086	11516267	11496086	11499402
14	11411309	11475405	11485763	11483267
15	11523180	11486723	11515796	11537374
16	11460163	11523077	11479323	11520145
17	11499023	11491900	11470874	11519600
18	11509319	11500619	11506411	11394314
19	11501576	11504208	11484117	11530242
20	11518529	11500999	11515566	11388335
21	11461761	11513260	11467677	11470914
22	11507451	11481714	11490783	11463459
23	11498865	11462906	11492531	11515863
24	11476547	11510887	11487429	11522323
25	11446931	11464002	11504891	11473723

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	11475874	11486361	11459433	11477166
27	11477302	11476919	11471237	11481666
28	11473371	11520943	11497534	11516934
29	11472867	11467759	11513066	11478066
30	11514910	11537735	11461131	11461955
31	11516788	11518800	11481465	11528116
32	11517005	11479853	11478111	11480882
33	11509706	11509185	11538630	11493655
34	11489554	11489625	11472253	11515744

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	11504397	11459599	11502315	11484589
36	11472816	11492666	11484025	11524879
37	11507978	11471821	11469432	11516605
38	11472306	11488825	11461534	11487633
39	11479479	11481436	11536134	11518620
40	11521140	11476944	11530315	11496236
41	11513411	11501546	11478467	11469924
42	11509659	11487202	11490304	11503808
43	11497419	11495693	11484134	11488578
44	11516986	11473795	11518482	11485519
45	11460393	11481905	11482052	11495684
46	11491829	11481844	11482643	11516002
47	11516065	11519114	11465094	11528800
48	11501088	11479661	11522461	11483266
49	11519111	11485222	11505375	11477533
50	11526180	11508888	11481222	11500622

MSAC 2007-HE4
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	2320061038884	2200061002700	11673355	2350061086510
2	11742882	2230061034394	11734905	2010061036071
3	2030061015600	2060061037670	2010061038168	11703489
4	11743524	2030061019320	11708068	2010061037722
5	11682999	2050061141997	2010061036895	11728123
6	2020061144068	2010061142252	2250061069790	2200060995410
7	2020061040412	2280061042210	11698901	2060061035065
8	1050060905670	11733845	2070061039504	2350061036481
9	2030061121380	2060061035840	2350061082890	1050061014760
10	11706062	2070061141735	2050061033071	2010061036649
11	2090061137320	2350060980690	11663548	2060061140060
12	2020061047130	2090061034390	1050061020860	2220061031920
13	11691640	2010061124870	11677288	11656218
14	2050061039990	11730812	2070061039537	11698329
15	2250061035234	11717482	2220061034450	2070061040408
16	11707692	11689146	2260061121850	11719767
17	2020061036453	2070061033639	2260060909360	11710885
18	11691563	11720930	2010061033601	11729406
19	2010061038744	2220061032240	11725547	2320061097160

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	2090061035220	2070061151900	2070061047110	11732998
21	11693115	11736321	11738641	11712284
22	2230061041880	2020061044580	2220061135110	11734292
23	11739396	2070061031709	11732673	11688034
24	2280061038982	11639920	11716283	2320061035963
25	2010060927486	11749694	2010061023500	2050061046470

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	2030061019410	11692145	2050061040670	2220060825530
27	2020061036211	2020061046850	11743268	11704487
28	11741487	11653950	2050061040690	11724688
29	11714820	11714831	2230061044480	2090061034200
30	2280061042170	1050060907030	2030061123190	11723425
31	2010061145702	2360061029020	2050061034942	11721615
32	2230061041890	2070061037702	2280061039674	11712613
33	2010061034403	11737253	2290061031356	2350061085020
34	11742114	2020061036414	2030061019890	11724841
35	2290061113690	2010061035611	11672644	2220061034370
36	2020061150480	11703980	2060061038470	2050060936810
37	11709384	2280061045020	11707025	2280061039811
38	2350061086160	2050061149970	11706422	11718509
39	11714534	2220061142173	2010061038383	2010060927813
40	11703175	11709850	11705811	11713874
41	2260061014040	2070061036056	11708659	11723833
42	2260060902410	2010060928762	1050060997410	11725799
43	11738196	2060061037234	11680451	2280061043990
44	2010061035546	2070061046960	11716466	2010061034632
45	2060061038681	2060061035700	2230061031686	2050061043890
46	11705441	2010061037571	2280061038926	11709244
47	2250061040384	2050061148200	2250061037503	2200061099360
48	2050060990550	11742887	2050061045710	11727143
49	2220061137400	11716282	11725849	11634429
50	11690434	2260061037032	2070061040066	2250061037716

MSAC 2007-HE5
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	2320070101320	11763148	11770049	11789876
2	2290061117380	2290070124940	2320061141191	2290061117000
3	2260061231630	2320061256929	2010061144729	2250070161652
4	2350061292350	2010070158385	11777695	11774189
5	2070061256000	2360061232960	11799639	11762042
6	11754488	11770900	11799156	2350061148547
7	11774308	2350061291910	11722361	2050061155710
8	2010061252591	2070060711364	2020061257630	2010061253776
9	2010061148824	2050061253029	2320061257804	11748460
10	2260070138020	2010061142085	11788936	11749307
11	2020061250973	11778967	2220061241160	11755513
12	2070061154890	11729147	2030070160506	11771679
13	2260061229970	11776598	2230070156380	2030061250809
14	2070061032206	2320061255211	11772310	2350061189500
15	2070061250579	11777461	11798253	11807683
16	2090070162083	11807689	11748252	11744066
17	11739660	2230061254230	2230061148185	2200061256619
18	11774791	11747388	2070061256444	11781166
19	2010061251979	2220061241790	2260061234330	11741579
20	11742591	2070070158020	11562167	11745305
21	2250061149625	11793724	2290061252776	11791274
22	11787226	2220061239050	2070061154740	2060061250229
23	2020070158700	11771485	11757670	2290061118850
24	11727304	11792272	2320061299460	11783206
25	2010061037155	11748390	11688116	11783530

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	11690880	11738128	11756767	2030061228300
27	2070061258014	11770196	11795376	11764496
28	2030061225480	2030061123340	2320070161665	11738030
29	2230061251180	2290061220070	2070070158521	11770702
30	2010060700100	2070070159392	2320070101430	11751182
31	2070061253077	2280070164025	11730815	11768502
32	2360061232850	2020061148660	2020061153820	11761389
33	2260061231450	11734170	2290061251614	11773254
34	2320061199330	2230070158524	2010070135400	2010061229900

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	11763915	2350061293160	11786948	11791026
36	2260061126480	11679367	11784014	11758452
37	11742575	11737706	11768598	2220061241810
38	2010061257404	11768884	11794769	11722136
39	11806889	2230061255663	11731466	2010061256876
40	2010070158565	2030061020470	11783776	11688761
41	11744047	11730958	2060061148314	2030061226000
42	11727524	11763734	2070070158326	2230061258197
43	11723829	2230061149571	11762570	11793656
44	2010070159747	11760813	2020061151200	2070070159470
45	2020061153510	11797910	11765405	11755040
46	2360061131630	11792301	2050061262120	11733014
47	11764721	11769951	11801131	2280070159200
48	2010061144343	11753385	2260061143343	11754695
49	2060061243550	2010070159035	11731467	2280070158430
50	2020061039502	2010061127050	2230061255050	11764649

MSAC 2006-HE2 (All Collateral)
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	2070051023240	11400872	11410895	11408013
2	11406664	11419760	11300964	11400236
3	2050051195010	11377129	2030051140710	2080051267780
4	11392789	11392547	2350051021720	11408349
5	11417655	2230051055570	11417366	11423803
6	2280051043820	11414507	11381344	11410558
7	2010051020980	2250051003010	2230051166860	11414184
8	2050051078870	11393048	11396156	11306784
9	11386740	2350051017880	11374236	11392595
10	11407210	11421096	11427470	11435285
11	11410571	11403773	11421540	11427229
12	11409624	11417532	11401061	11369684
13	11381339	2280051037960	11391714	2290050922950
14	11372515	11375183	2250051111980	11406762
15	2010051264250	11418599	11363670	11392292
16	11394329	2010051258740	2230051168320	11417278
17	11385875	2330051063550	11373591	11417963
18	2320051039970	2330051167140	2280051145580	11425382
19	2050051193650	2010050999570	11391596	2260050885400

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	11383730	11429140	11395184	11382470
21	2010051264600	11413584	2080051053100	11403154
22	11313030	11351926	2050051193910	11413969
23	11412437	2080051158840	11423335	11375664
24	2260051121680	11432627	11391451	11403723
25	11394176	11354911	11363776	11431502

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	11399871	11394935	11414077	11405750
27	2070051022590	11361586	2070051023870	11397020
28	11354464	11384993	2070051142850	11401593
29	11416326	2080050699820	2220051175330	11409580
30	11362749	11417411	11394897	11399220
31	11401122	2070051017640	11362644	2230051169970
32	2060051184310	11423467	11407713	11428472
33	11367208	11411342	11410627	2010051265910
34	11428312	2020050949100	2010051010090	11401338
35	11428168	11374364	11420285	11394631
36	11385027	11431742	11414873	11423068
37	2080051160720	11405662	2030051023940	11413212
38	2010051156760	11404782	2090050968030	11363952
39	11381383	2080051050480	2330051061500	11333791
40	2280051039690	11390577	2230050946820	11406975
41	11373872	2250050890240	11415828	11426767
42	11315069	11393619	2100051124030	11405231
43	11413238	11381384	11411018	11419737
44	2280051034770	11387840	11397658	11396497
45	2350051019190	11368177	2080051163420	11407617
46	2330051060470	2360051188380	2010051153320	11405336
47	11316449	11348998	2070051027360	11416153
48	11373406	2210051161850	11412909	11304410
49	2010051009430	2010051151050	2080051268750	11407372
50	2260051113920	11407768	2070051016470	11404620

MSAC 2006-HE2 (Group 2)
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	11407050	11347645	2030050912580	11404390
2	2020050839150	2010051257710	11404060	11410526
3	2020050839470	11374066	11398589	11396187
4	11409157	2010051023830	11409164	11403175
5	2010051134520	2080050941930	2100051127190	11388728
6	11323265	11396313	11407977	11402628
7	11405706	11399330	2320051040290	11410315
8	2010051259180	2030051026120	11408087	11413543
9	2070051027770	2320051147260	2260051011760	2250051112770
10	11288312	2100050911240	11426555	11366108
11	2020051060620	11407126	11419259	11420133
12	2080051167060	11366777	2080051047460	11338987
13	2070051141100	2080051158730	11405896	11415409
14	11378557	2020051168620	11399565	11390386
15	11422848	2070051018600	11408080	11327903
16	2070051024830	11351460	11405558	11415595
17	11417154	2020051171180	11419504	11409581
18	2100051121660	11417035	2010051134960	11426787
19	2070051014670	2080051046420	11430103	11399842
20	2250050998680	11400872	2030051025970	11420151
21	2010051151620	2100051018960	11401368	11410299
22	2090050860820	2080051161230	11417820	2080050938900
23	2070051248500	11364645	11362581	11413725
24	11344742	2230051058370	2080051159650	2010051265910
25	11392192	11419798	11414889	11419862

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	2280051154770	2220051065710	11399145	11423204
27	11417182	11403114	2330051061850	11397551
28	2320051039050	2080051045950	11422370	11350788
29	11410281	2090051077980	11404706	11393458
30	2020050948150	2080051048990	2050051297630	11390908
31	2260051008600	11367034	11413717	11409353
32	11364848	2050051189950	2070051021220	2350051125520
33	2330051169030	2020051061160	2250050561850	11379121
34	11411666	11398134	11396834	11392047

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	11391081	11391469	2070050908730	2080050826720
36	2080051166410	11392823	11413437	11412575
37	2020050946240	11386057	2260051114890	11407911
38	11370059	11417268	2250051004680	11423967
39	2010051156690	11427079	11403717	11400521
40	2010050987850	11397328	2220051171300	11364601
41	11392712	2280051146170	2230051166860	11399888
42	2050051082990	2050051082090	2350051020960	11409875
43	11391294	11362227	11404196	11412510
44	2320051042080	2070051028510	2070051029870	11428657
45	2060051179290	11331438	11407230	2090051186570
46	2350051018650	11423617	11325494	11404468
47	2330051169080	11292382	11394416	11405755
48	11425296	2010051018050	2010051027840	11387151
49	11332574	11410566	11400509	11427861
50	2060050967290	11415002	2070051253050	11405472

MSHEL 2006-1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	2080050815850	2320050823460	2010050979000	2000003935
2	108398378	109733718	2280050809090	508120304
3	2350050804210	2350050805000	108400977	1000236208
4	3029505855	2080050823070	2070050900640	4600001618
5	2250050672300	111724706	2030050916440	2010050981020
6	110077639	2210050834150	2290050813470	2360050876330
7	108568387	2080050828020	109821587	3076503620
8	3076505778	5255501416	94244838	5600000283
9	2000004195	D05050455	3058506835	5240506502
10	103133203	2030050911230	1000232448	1000232450
11	110472260	1000233418	1000238049	3029505224
12	2030050578800	1000238807	507281290	2070050877580
13	5215500192	2070050882690	5287502693	2000005011
14	3027505671	1000233026	3076505678	2290050710850
15	5272500964	5213500417	110343729	G05061799
16	2260050986590	2070050770450	2260050872460	108375686
17	4500003053	2080050825530	2500000556	3027505150
18	2050050835820	2050050850630	3076506056	92549952
19	508095365	2070050998010	3500002933	109239854

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	2010050865660	507281077	1000235355	1000234965
21	506297202	103218646	2230050832130	2080050827260
22	2060050856300	2100050894560	B05050786	5240506078
23	5240506041	2030050808490	2260050771010	2020050841310
24	3076505752	1000235661	3029505814	4300001382
25	93328698	1000237109	2280050807550	110656664

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	2080050824480	2320050928650	3076506219	109560551
27	4500001589	2200050812410	2290050924230	4500002828
28	507063610	4000001479	2200050811940	110993213
29	508025803	507225033	3027505477	2030050803910
30	5299500693	3027506089	3029505227	5240506428
31	5200500917	3076505673	2100050903750	2290050817820
32	E05060440	3076506394	111164145	1000237514
33	2010050872970	1000236340	2070050903580	108669761
34	3076506166	2030050806700	2280050915650	508094630
35	3029505748	110446018	99887622	5240505457
36	103138403	2070050996740	2010050981260	1000238444
37	107457491	1000236080	7100000458	5243508496
38	3027504016	2000004177	E05030471	1000235903
39	2010050983790	2220050844910	2080050930860	3042500231
40	2100050904540	5289502938	2010050736830	2600001849
41	508025884	2280050808350	2010050982000	2260050881660
42	4700000583	110546056	94308310	3029506129
43	5600001135	109480833	1000237751	110442567
44	2070050999970	2070050998060	2020050841470	508051713
45	2500002168	1000222028	2260050986420	5240506750
46	5207501052	2030050910630	103163879	93325393
47	2070050904920	3076505520	111630836	508095447
48	109560487	5243505067	93750574	4800000075
49	2290050925640	3058507099	5205500985	3042500229
50	2070050885610	2210050834990	4000001030	508118106

MSHEL 2007-2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	2000036526	3061601307	3029610556	608286924
2	4300019490	4000014227	5200028037	4500024200
3	3029611859	3029610298	3027607925	7100005380
4	4420607098	3027608248	4700007931	7100006152
5	5800020040	611082486	5128600533	611209695
6	5240607580	4000014735	3076608397	610217680
7	4600011678	3000016081	611152922	610238748
8	610308317	5228603823	2600015558	2600018601
9	4300020885	7100005616	3027608643	3027608306
10	3000051387	610309165	7100006201	3029611080
11	2500052859	611139544	2000039065	3076608172
12	4500024388	2000036930	2300004693	3058612923
13	2000037947	3042601699	610310998	3027608357
14	3029611013	3500023724	3000052598	3027607207
15	2500053222	3029611249	5267602132	3500025394
16	611117606	3000051173	611164915	7300000129
17	2000036964	3000052609	609076340	3000052347
18	4500023801	4420605642	4300020092	2500053497
19	5297602059	5269600272	3029612056	3029612638
20	610042109	3027608401	4500024015	3000053041
21	5298604040	3500025158	3029609975	2000037362
22	610310927	7100006346	611071360	5292602877
23	609077805	610168611	3058611121	5243612222
24	611105973	611138650	3027608134	4500024542
25	611094405	611094677	611152447	3500024311

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	3500018343	2500054205	2000039916	4000014856
27	2000036285	3058612872	610195452	5217602645
28	3500026145	3500024422	4500025279	4000014558
29	611140384	4600014804	3027607402	5200029809
30	2000038864	3029610544	2000035135	2000037533
31	3029610389	2000037101	4600014149	608219815
32	610240012	7200001086	4600014072	610264897
33	3500023628	3029610338	3076608227	3063600408
34	3058610816	611154013	2000038018	611138490

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	4300020152	3500021398	3029610634	3500023771
36	610038072	5243613915	4420606678	5243612340
37	610309307	611035728	3029611239	610100042
38	5217602485	610311172	611068726	3029612644
39	610253886	4000013533	5299605370	2600015931
40	2500053655	4420606045	3058609678	610179379
41	610168330	8887975774	3029611116	610238747
42	4500025167	3027608114	2500054868	2500054008
43	5201603793	5267602164	5267602296	3027608190
44	4300019088	7200001194	2300004709	5205601892
45	610182162	4000014648	5277604328	611176337
46	611012576	5200027343	4300020723	3500026675
47	611094005	4500024290	3500022537	3500025667
48	606163345	5200023640	611070396	4600014093
49	2300004842	4420607111	3029610631	5200028850
50	609156338	3027607191	608163989	611082052

MSIX 2006-1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	601058096	5267600310	325393	2000019095
2	103224022	483129	1000251677	4700003371
3	3058601070	1000253286	1000253912	512051542
4	5266600003	1006528992	511283999	601203604
5	327006	4420600975	601268490	1000256382
6	37478	1000254369	55576102	3000009958
7	3000009708	3058600230	3000008618	2500006472
8	601180533	512018676	106034235	5243600585
9	3058600976	1000255695	601300470	512139871
10	199095	35558	1000257050	1000256473
11	2000018361	2500006575	1000252565	5267600177
12	1000255405	100030287	3029508312	3000009527
13	14314	1000255072	4412500649	1006450191
14	2300001790	4500012362	1000250344	2000018644
15	3027600521	3027601970	3027600457	33256
16	5281501316	31958	4800002564	511306219
17	5288600554	1000252178	1006763905	511217963
18	3058600370	302505	322450	603027799
19	3058603099	5000009749	100030175	3027602219

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	1000257994	3029603039	322395	1000253590
21	1000255710	1000254302	4500011214	3500010896
22	2000018081	3058600337	2600006620	601057449
23	3076600363	1000255098	1000253007	296423
24	1000252775	487114	4412600190	601179978
25	3027600546	1006512151	1000257001	241346

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	3029603097	5000024966	1000258572	5243600233
27	601146925	511187033	1000249983	5240600719
28	239794	512062921	4700003259	5207600349
29	4000007255	3027601828	3076508602	5243600913
30	4000007080	2000019193	512270357	1000252351
31	244234	3500011041	602285637	511283906
32	5291503323	4420600006	1000256223	3076601619
33	100030128	3027600381	3029602718	3027601796
34	339228	3029508069	3029603489	601057097
35	7100002752	100030059	4600007028	4700003162
36	321275	1006396027	5213501590	326060
37	5246600393	511047403	2300001873	1000254156
38	5201600088	2600005849	4600007032	106032239
39	325561	3058601587	307476	1000256781
40	3027507640	3029507728	3027600443	5213600496
41	317163	4700002806	5213501632	315374
42	601246033	1000251892	3027507653	5243602679
43	5202600137	601101967	3029508221	3076600848
44	5289600134	5240600259	3029600998	4600007114
45	106032163	3500010598	3058601044	2000019488
46	601090968	1006287742	4600006512	601246006
47	100029755	37936	2500005944	3027600305
48	5296600734	7500002551	323919	5272600108
49	4420600997	5200600297	326847	5272501474
50	5240600268	325599	3058600785	3076600615

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Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	3342000898	3000774027	3274032721	1153749
2	1216118	3000810265	3000816284	3000827521
3	1217402	3000823475	3000823122	1201898
4	1209338	3000826568	3311000972	569681413
5	3000813902	3000828933	1200454	40359304
6	3000818465	40404673	1223291	1219638
7	40410367	3253003782	1204637	3000818659
8	64603	1223278	3000821935	1207342
9	1124414	1201908	1221770	569710197
10	3274032988	3000810511	3000834490	5759806
11	3000824447	3000811789	3000828132	1198729
12	1212238	1212237	3000827063	1216569
13	3000817292	1212448	1221785	3000832936
14	1233345	3000834290	3000818735	1222749
15	1213955	3000820909	3000833761	3929060
16	3318005842	3000822512	1221784	3000780853
17	3929478	1218678	3274028908	3000816937
18	1216527	3000834033	3318004819	1212906
19	1207057	1114426	3000807544	1204912
20	1185333	3274031826	3000829579	3000829137
21	1117054	3000805613	3000813248	3000812311
22	3000826015	40419350	3318005477	1223270
23	1215591	40410368	40385193	1204611
24	3000824417	3000817784	1215845	3318005024
25	1208698	1213839	1211911	569574773

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	40416547	3318005668	1213899	3253002988
27	3925830	3931847	569740363	1221786
28	1226953	3000819308	1215998	3000820503
29	3000823974	1222627	40378327	3000825899
30	1171759	40393202	3931541	3000827561
31	3000812880	5763918	3000774799	1218590
32	9402390507665	3253004683	9402390518819	3000824951
33	1208382	3000824094	3000831207	3000834613
34	3000781866	3000804882	3000774287	1223279

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	1225799	3318005707	3274031495	40404652
36	3914049	3000812894	1207198	9402390515591
37	3000832201	3000831857	3000812574	569799082
38	3000827538	3925841	221651797	1208343
39	3000806981	40409450	1213877	1213836
40	1218885	3000823625	3000812962	1202215
41	3000831972	1200457	3000821389	1200956
42	3925038	3000804948	569469473	569675456
43	3000814255	3000817600	3000822437	3318500582
44	1221790	3000813771	3000832981	3000826062
45	1225626	3000786311	3000826799	3000812950
46	1207903	1223295	70165	40402433
47	1213690	3000823095	1206723	1208414
48	3000823448	1218605	3318005243	1219626
49	3000816280	3000784161	3000811581	1202403
50	3253004043	1211923	3000812477	1221791

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Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	2390524160	1231137	1245746	1236584
2	1245758	1247567	1249833	1250983
3	1260379	1249053	1247589	1228540
4	1247578	1249057	1236848	1229357
5	1247607	1241976	2390523894	2390523640
6	4764549	1244808	549905596	2390524855
7	2390526232	1232688	1250976	1179123
8	2390523205	2390527470	1250740	2390526698
9	1249063	1236926	1250988	1247569
10	2390526987	1248085	1249071	1232519
11	1216022	3342000430	1220367	1241979
12	1230386	1248167	2390526078	1253909
13	2390523910	1233287	1232190	1229438
14	1228472	1245747	1255106	1247582
15	1258042	569475392	1236583	2390527641
16	1252155	1237461	1253382	1193905
17	1247576	1249984	1247584	1254871
18	1259112	1249213	1245752	569828155
19	2390521713	1241989	1230022	2390524853

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	2390523665	3311001475	1227833	1245745
21	1250195	1247596	2390522933	1235995
22	569606845	1247562	1247595	1238541
23	1236922	2390527246	1245739	1249221
24	1226557	1262971	1245756	1219896
25	1241978	1229305	1248074	1233283

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	1248072	2390521645	1247573	1231150
27	1225902	1243920	1213984	1247700
28	1245753	1249293	1249831	1245759
29	1250985	1222596	1248163	1255111
30	1254755	1222541	1247561	569625718
31	1249879	1255013	1236906	2390527503
32	1248086	5180182	2390526165	1247602
33	1252152	1259507	1234296	1249049
34	1260369	1254873	1248083	1228114
35	1241974	1259447	1247590	2390524425
36	1243959	569784956	1252154	1248070
37	1247563	1249296	1247568	1261478
38	1222503	1241400	1243882	1250987
39	1261477	1224699	569712025	1245761
40	1261557	1236604	1245751	1245737
41	1245524	1250982	1249704	1249987
42	1222366	1224612	1213088	1243923
43	1248084	1204653	1245813	2390521495
44	1249285	1248165	1198730	1247591
45	1239028	1259446	1261475	1248082
46	1253844	1247594	1255104	1250109
47	1255296	3311001597	1242385	1205354
48	1247586	1228470	2390526632	1245740
49	1235980	1237620	67730	1239035
50	1249295	5100014	1229381	1233431

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Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	1293711	3940314	3000823077	3000895287
2	3929330	1309175	1294203	3947304
3	1264622	1203889	3253001720	3000888689
4	1292664	3000893788	5969880	1096704
5	1298143	1281750	2192	3942915
6	1310355	3000901476	3928334	3000880194
7	1294287	1222776	1309278	1237612
8	1291951	1273139	3000885316	5987295
9	3000897109	3000890541	3843981	1287041
10	1291756	1304003	3000905466	3000895726
11	3000885423	1298055	1296837	3000809524
12	3000877357	3000892137	1207419	3000820848
13	3000884114	3000892407	40414201	1298497
14	3000833328	1290253	1303972	5968688
15	1291443	3000894528	1107418	5986483
16	1282269	1143279	5989253	5969106
17	3000899559	3311000609	3000889073	3000891205
18	3000895274	40418847	1281199	1298097
19	3000897173	3000846209	5984040	1298682
20	1288622	1285424	1312525	3949799
21	1288243	1296111	1156892	3948966
22	1297419	3000887568	7827165	3951717
23	3936832	3000892686	3000881569	5980986
24	1284128	3000880042	65551	1132004
25	1267565	7831961	1289923	5770182

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	1294906	3000902686	1283593	5976815
27	3951872	3944631	3000890555	1216342
28	1291514	1283295	1209379	5984460
29	3253002461	1260384	3000901801	40487032
30	1272665	1272396	3000883547	3952438
31	3000857119	5973068	3000895320	1285489
32	3000899566	40411464	1093492	3000883732
33	1293213	1209371	1294753	1296785
34	1288224	40433841	1153780	1213081

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	1228343	3000824655	3000889024	5975424
36	1198159	1221771	5980307	3000901684
37	3000882609	1145201	3000893199	3000888697
38	3000898043	3000897957	3947663	5973123
39	1284120	1294459	5977760	1303981
40	3946334	1233418	3000898750	1197992
41	1308329	7571533	3000896075	1180550
42	1157068	1235621	3000891593	3000895833
43	1299136	1284129	1291965	5984606
44	3000895424	3000887987	3000885954	5991423
45	1308317	3000865655	1294751	7829336
46	1298052	1285411	1284131	3000886824
47	1183149	1288237	3000894264	40411746
48	1300793	3000892502	1308347	1282692
49	1284845	1291413	1250110	1295019
50	3947359	7831661	1232522	3000896424

MSM 2006-9AR
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	1321431	1248100	1321641	5300001469
2	1335851	5300000711	5300001325	1321964
3	3955000545	1315015	1322757	6-005513
4	3951795	3000812014	3955001928	1321925
5	1336816	1301157	1306288	1334677
6	1320495	1331161	1320548	1320503
7	5300002307	3311003559	1327961	1321216
8	1308484	1323517	1317503	1760302952
9	1313012	1320489	1315733	1321531
10	1320406	1346684	1347878	3274041800
11	1303617	1321938	1335869	1345571
12	1335852	1345191	1321182	1317335
13	1345363	1321801	3604222	1321402
14	1303841	1321210	1343607	1321937
15	1320461	1345428	1297417	1320457
16	1241987	1322048	1321302	3253011453

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
17	1303880	1321817	1335334	1346664
18	1345417	5300001074	1322806	1336789
19	1326773	1335862	7830859	1326747
20	1345436	1331419	1334646	1321707
21	1860300446	1335842	1335881	5300000742
22	1269711	3908474	1321650	3253011608
23	1331250	1315359	1321855	1345379
24	1320488	1317378	1345360	1321980
25	1303847	3319000345	1321129	1300457

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	3253011653	1320570	3000855481	1312316
27	1329316	1321686	1320432	1321998
28	3253013232	1321979	1321860	1320485
29	1326769	7840192	1321794	1208603
30	1303859	3930054	1322133	1321092
31	3319000399	5300000376	3955002125	3253011213
32	1320573	1315361	1275629	1345376
33	1331171	3318008178	1321299	1321229
34	1345570	1335920	1331172	1321232
35	1345483	1327970	1303855	3318008085
36	1329329	1296073	1321198	1321445
37	1313820	3253012461	3342004425	1275895
38	1335907	1326760	1320393	3342003674
39	1316496	3253012529	1321575	3274041892
40	1317272	1321475	1346656	1320450
41	3000865261	1312275	1320479	3253011782
42	1313813	1321476	3943716	1322088
43	3952564	1334733	1319673	3253013240
44	3957916	1323649	3955002042	1321262
45	1335871	1322069	1320541	1267783
46	3253012301	1326767	1335342	3274042674
47	1327940	1320571	1319434	3253012326
48	1208631	1345019	1319412	1321646
49	1321769	1335861	3253012222	1331215
50	5300000344	3953894	1320433	1322824

MSM 2006-10SL
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	1303815	3274040856	40564228	6024434
2	6007603	1313936	40565942	40566558
3	3318007416	6125355	1298142	3342003056
4	1314427	3000918671	3318007998	1317282
5	1293141	5909718	40579330	40542885
6	2280050923220	3274036383	3000920341	3000904598
7	2020050954200	40554207	40574384	1313986
8	3000936631	40576707	1290983	40541675
9	6189690	1298129	1287314	40581959
10	1328188	5863782	3342003491	1293129
11	2330060400650	2100060449020	3000902098	3000907463
12	6159529	3000900174	3955000156	40503478
13	2010051018090	40564260	40580464	1335967
14	2050060441060	3318007267	2010060331090	2200060252360
15	2200060358150	2010060337920	3318500989	40542117
16	5948443	40542359	6060057	5913389
17	6083216	3000939997	3342003149	3274040561
18	2090050974020	2320060371800	1274988	40475582
19	1274811	1337397	40545374	3945000251
20	1297430	3000924307	1329173	1298140
21	1316462	2330060288580	1302045	3349000126
22	2220060397900	1278971	40550412	3274041192
23	3000929047	40518747	3000928631	40549411
24	6242317	2300060394850	3000898365	3274040192
25	3000922738	2350060450260	40577377	40562035

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	1287310	3274037108	3000907481	40537939
27	6059083	2230060397020	1302213	3274039811
28	1298369	3253009889	1760302613	3253011672
29	5970249	1296263	1328363	2220060400730
30	2280051032880	40508656	3000932299	3274040818
31	40526455	1308518	40564806	3945000160
32	40539807	2210060490560	3253009217	40549459
33	1224684	2250060340860	3274040462	1336462
34	2030060367940	3274037192	40555240	3274041863

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	2230050948200	3000896215	3000914414	40466090
36	3274037028	2010060446920	2030060258830	40543715
37	2070060389550	5920129	1328191	3955001814
38	1299526	3000902535	40550889	1317783
39	1318896	1314017	3000929660	1316434
40	2230060401300	3000913704	3955000978	1298702
41	3000925097	3342003587	1310775	1250111
42	3274040243	1291335	40549365	1342442
43	1317007	1291346	3915000209	40562106
44	3253009815	2030060367350	3000934671	3253011732
45	6009906	1302408	1316457	1317977
46	2250060441150	2230060393360	40569664	1306352
47	3975000404	3274037142	3253009990	3349000137
48	6205413	3253010223	40541810	3342003722
49	1317796	3342002855	1329437	1300061
50	2030060470210	5300000417	40571481	3000933999

MSM 2006-13ARX
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	1346848	1360986	1392090	1351983
2	1364672	1380391	1380383	1372193
3	1329160	1384454	1319237	1361022
4	1361551	1354145	1390947	1394884
5	1359021	1352998	1349727	3000964014
6	1328621	1361090	1378737	1359741
7	1350685	1365471	3962937	1296260
8	1303992	1331433	1324475	1380498
9	1323537	1350683	1346489	1350727
10	1362561	1380449	7843418	7844380
11	1380401	1377451	3983099	1350654
12	1350718	1148274	1378741	1383118
13	1372358	1365428	1322815	1395406
14	1380093	1380596	1365539	1354159
15	1372327	1346479	1383803	1352465
16	1321952	1359747	7843849	1318796
17	1354130	1347945	1322614	1350658
18	1380533	1385819	1359746	1365526
19	1344029	1348004	1315005	1352478

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	6324117	1352083	1361298	1359178
21	1328545	1357940	1315749	1354202
22	3000944731	1380511	1354155	1354213
23	1361285	1348025	1352667	1350659
24	1232684	1314970	7844331	1323641
25	1393296	1375131	1346501	1351032

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	1361216	1380404	1385639	7842009
27	1359958	1348032	1392108	1377045
28	1368291	1355248	1323655	3969204
29	1359837	1316719	1346538	3947617
30	1386446	1381237	1380417	1365504
31	1352663	3000934850	1380587	1317561
32	1352687	1380392	1361384	1393452
33	1368288	1319679	1315719	1320426
34	3952570	1357054	1360975	1360928
35	1361571	1383122	1318033	1385817
36	1352719	1298700	1346541	1359878
37	1355724	7845026	1392087	1367182
38	1344074	1380444	1355568	1384209
39	1361532	1352479	7843280	1365545
40	1350736	1361135	1357070	1380454
41	1352031	1361253	7842805	1355732
42	1352682	1383723	1323887	1368306
43	1388171	1351035	1329436	1365541
44	3000951351	1380452	1343998	1361061
45	1329163	1364002	6339494	1343985
46	1337395	1350648	1385421	1380419
47	1360858	1350676	7843860	1320480
48	1377031	1352666	1346525	1344035
49	1314950	6322332	1360860	1331152
50	1355445	1350730	1359959	1350698

MSM 2006-16AX
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	1364856	1370997	2091035	2094496
2	1357076	40635035	2093740	2092524
3	2092903	2094750	1366648	2096071
4	2093220	2091999	40590336	40637237
5	2090383	40579679	40593729	1361657
6	2091759	2094771	40621203	1320666
7	2091903	2092027	2084845	2093698
8	2094840	2090369	3000954925	2085413
9	2067182	40613992	2085723	2095104
10	2092205	2096758	2091427	2093024
11	2095976	2093763	3000983164	1363065
12	2091763	3000983649	2073377	40640509
13	3253012171	2085385	2090949	2094241
14	2081053	3000966355	2085408	2094335
15	2093383	2091626	1373058	1370021
16	2083428	2085456	2091998	2090970
17	2091869	2094341	2091653	1342606
18	2094757	2091966	40643136	2086284
19	3000988732	2085092	3000984937	3000991712
20	2083446	2091627	40631530	1375679
21	2084900	3000863241	2085156	1345262
22	3000985961	2090853	2094522	40632730
23	2093406	3000955433	2091990	2083737
24	1369951	2094356	2085074	1360095
25	2080666	2085403	2092213	2094030

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	2092087	1349460	2090930	40635301
27	1367870	2090944	2090408	2091633
28	2081363	3000980433	2092040	40644118
29	1367815	2085889	2085463	2091489
30	3000982332	2085431	2090594	2094061
31	2082787	3000982697	2090039	40638429
32	3000976950	2095667	2090209	2086480
33	1367774	40634886	2091530	2085387
34	2094494	1356729	2085891	2091988

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	2083427	2090830	1364827	2094957
36	1360059	2092054	2094127	2094051
37	2093207	2094942	1355170	40621432
38	3000975027	1355364	1374047	2094965
39	2092245	2096057	2080859	1371989
40	2096231	2094178	2096778	2086067
41	2094278	1364632	2095195	1350314
42	2091878	2092204	1371577	1362126
43	2081439	1346618	40632092	2085130
44	2092212	3000950307	2091861	1372153
45	1361294	2092045	2085097	2091649
46	3000984167	2069924	40633184	40628328
47	2097374	1368308	1354367	2090952
48	1298554	1351693	2091119	40634138
49	1338928	2085437	2091090	1360537
50	1369177	2091369	2094987	40578501

MSM 2007-2AX
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	5700968	3000999519	1447855	3000996642
2	123394187	1413678	1410347	1432773
3	1315027	1451949	1447461	1384465
4	3000993936	90561853	3000998117	1447314
5	1432837	424-10562942	124078830	123708051
6	124027749	203102835	6-011659	3000975349
7	124061754	3000994666	1344723	1447824
8	7841418	3968985	1445862	1436067
9	123578141	1390930	7846251	1419356
10	3001015851	124215013	1430097	3000886810
11	1426660	6-009701	1409640	1409631
12	1432374	1373255	6-012630	1447966
13	3000999021	7846822	1396816	1447357
14	1409682	1422679	1356923	1432878
15	90724691	7849190	1455974	1380412
16	1423516	90748583	1366068	90675562
17	3001007990	1447893	124203950	1447903
18	1413610	1408834	1447282	1403962
19	1448062	1424571	3001012937	6336667

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	1451916	6340577	3987410	124197914
21	1433529	3001024460	1432811	1432821
22	1420155	6339975	124081083	7846626
23	1447969	3954029	6336147	90339987
24	1382727	1409704	1445866	2711
25	3001007089	1432851	1447328	1448063

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	1364704	1441346	7846568	1430136
27	1450658	1426034	1407116	123974329
28	90641002	1419627	1441466	7572663
29	1396822	1445819	3000986846	1443564
30	1432862	7849346	7840149	1448197
31	1448127	1430569	3328	1302670
32	1447441	1441648	1423782	3001009129
33	3000996600	1419299	6349515	1432658
34	1362551	6330434	1393735	124182173
35	1434141	90751884	1408743	1447761
36	1409657	6-010376	1421729	1447638
37	1414262	6341379	123671835	6-011485
38	1436095	6336923	1402537	1447904
39	3001011423	1443542	1382764	1432879
40	1360885	124118092	123830348	1447580
41	203116637	1419372	1447760	7852635
42	1453210	1208524	3001004773	1432848
43	90718552	1393396	1429983	124169907
44	7850871	40609078	424-10570671	122897854
45	90524307	1431257	1433775	7853627
46	1375126	124137170	1430001	1443573
47	1446088	1464748	1372352	1445816
48	1447725	1406084	1432813	1441439
49	1426903	1402477	1403982	3001008338
50	3000996138	3000981423	1447936	1401886

MSM 2007-4SL

Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	292095610	292104595	290046226	292101312
2	290062402	290053984	292107774	292075976
3	292103592	290054125	292097894	290054757
4	292090163	290046460	290058352	290054286
5	290054798	290054219	290058592	292107491
6	292095193	290058257	292097430	292103195
7	290062583	292099774	292099039	290049574
8	292096297	292102565	290061722	292103400
9	290058448	292099692	292103810	290054063
10	292092554	292102583	292108558	290049556
11	290054539	290058997	292100428	292094814
12	290058918	290046161	290058551	292082392
13	290058237	290058868	290054796	290054522
14	292082734	292086512	292099251	290054624
15	290056471	290062552	292073276	290061184
16	290058740	292097272	290061278	290046474
17	290058244	292103883	292065359	290054293
18	290050923	290058805	292102561	292104684
19	292095636	292107509	292107481	290054686
20	292107739	290054675	290054038	292080004
21	292107715	290035366	292099108	292098627
22	292107569	292092102	292103520	290056488
23	292100766	292100776	292105861	292083571
24	290058930	290054003	290053550	292083326
25	290062527	290059020	290054599	290054785

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	292108254	290056476	292099097	290058500
27	290058839	290058508	292094804	290061358
28	292108233	292100373	292098451	290061138
29	292107744	290056512	290061394	290061197
30	290054681	292097981	290056559	290056596
31	292107683	292095351	290046582	292096922
32	292099046	290054325	292103276	292082079
33	292107802	292097153	292096449	292079016
34	290058831	290057262	292107654	292096662

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	292094568	290049635	292096903	292093144
36	292100806	290058717	290054051	290056366
37	292091025	292103506	292104638	292104899
38	292095302	292100533	290058440	290058809
39	292106041	292100816	292090485	292105791
40	290046326	290060397	290046560	292107631
41	290058828	292079934	292103573	292107669
42	290058633	290056613	290054233	292084598
43	290058514	292096107	292107338	292083320
44	292102669	290056726	292104184	290046316
45	290048947	290054280	290060395	292104036
46	290058590	292095308	290048025	292108709
47	290054278	290046571	290054628	290046102
48	290058970	292105445	290046688	290046609
49	292103697	290058950	290061185	292095891
50	290058625	292095360	292097487	290054331

MSM 2007-5AX
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	2105533	4000012355	2096446	2109692
2	3968161	2106567	4700006579	2113423
3	2106399	2105080	2099968	2109760
4	2104405	2102691	2098030	3001024493
5	1477055	2105174	3500020366	6341839
6	2100228	2076131	2104927	2101351
7	2112248	2111463	2107109	1476131
8	2103380	7100005218	3000859717	4600012844
9	2099747	2035515	6341049	2109755
10	2080955	6-012757	2094734	2106159
11	2106219	2098593	3001034610	6330279
12	2100279	2102224	3500022141	2107459
13	2110628	2102281	2104298	2105292
14	2100048	2103990	4700006121	2103057
15	2098919	2107206	1466659	2106164
16	2109883	3500021877	2106091	6349581
17	2081018	3500019376	2105109	2600015235
18	2105085	2102476	2101636	2110728
19	6360842	2093789	4500023254	3001019143

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	2107196	2102958	2000032904	2110120
21	2103919	2106144	2104134	2076737
22	2107151	2100115	2104305	7853919
23	2106111	3000018163	7100004811	4500021957
24	2105030	2104412	2104727	2111559
25	2093051	4500020642	2098905	2111288

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	3001013654	7100004953	4500021014	2111747
27	2101445	2106783	2097069	2112004
28	2101360	2098032	3000018230	2106128
29	2099164	2106842	2109023	4600012865
30	2109361	3001039382	4600013376	4700006135
31	2102693	2106809	2103784	4000012969
32	33333333348602	6352406	2102656	2106134
33	2102649	4500020956	2100571	2600014316
34	2108989	3500020879	6345029	2106766
35	2110360	2000033532	3000854509	2100073
36	2105404	2096437	1479343	2000033627
37	2112769	2098382	2105133	7500004890
38	2103973	2103826	1462027	3500021153
39	2100188	3500020964	2300004757	6371105
40	2102439	3001019069	3001000695	2110677
41	2106530	2073475	2105034	2106127
42	2109876	2106789	2106153	2104686
43	2113414	2077500	2100915	40613451
44	2108487	2103929	2102150	1456014
45	2111074	2107332	2108192	4500021926
46	2091021	4700006355	2103354	2106779
47	2107438	7844945	2095817	7500005151
48	3000050127	2095938	4000012935	2110330
49	2109446	2109647	2111784	3989630
50	2109804	2600014480	2105262	2105106

MSM 2007-11AR

Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	1646536	1457305	1641514	1643387
2	1596313	1550689	1641483	1620932
3	1492619	1640212	1640218	1641235
4	1551555	1556267	1641669	1640155
5	1626131	1641381	1606049	1568248
6	1578200	1456635	1717692	1551496
7	1556260	1563999	1692626	1650926
8	1640177	1640203	1559789	1551564
9	1528154	1549720	424-10645355	1521666
10	1539552	1520946	1648694	329-10610337
11	1539608	1570557	1553626	1641479
12	1641549	1551409	1614455	1650871
13	1443523	1553097	1535406	1655305
14	1569697	6375346	1641243	329-10621081
15	1546305	1614440	1641571	329-10612697
16	1543217	1559329	1618223	1717693
17	1011442192	1522067	1640194	1551600
18	1551438	1641364	1657632	1641244
19	1616416	1640176	6358518	1687798
20	1641412	1546754	1640154	1655316
21	1011752249	1543371	1495074	1641783
22	3001066566	1504339	1641431	1641661
23	3993226	1585006	1691302	3001058808
24	1479865	1549082	1526338	1551270
25	1614468	1011481960	1641237	1691127

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	1530248	1504763	1641468	3001041131
27	1641279	1650930	1475791	1641591
28	1551351	1609198	1520894	1641626
29	1474116	3001064539	1641585	1551332
30	1628828	1641418	1447287	1641434
31	1563020	1641219	1551542	1457287
32	1539948	1641306	1576046	1551458
33	1641249	7859157	1691301	1520884
34	1539830	38-10554834	1641589	1520958

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	1607414	1641685	1606122	1641466
36	1540265	1641336	3997122	1640199
37	1569900	1522084	1620841	1426657
38	1641453	1704192	1640220	1690051
39	1600614	1641511	1571509	1641442
40	236-10641726	1639722	1568236	1671194
41	1550132	1453767	1672391	1648713
42	1551306	1475676	1641673	130-10639911
43	1464805	1466500	1717700	1475858
44	1479893	1574149	1551287	1641411
45	1504444	1629881	1641566	6363414
46	1528201	1655338	1641755	397-10630419
47	1475833	1641331	1571628	1551627
48	1504665	1011686008	40561129	1600567
49	1530252	3387775	1668182	1568247
50	3001064386	1707399	1558173	1688536

NTIX 2007-HE2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	16501	5289605504	5243612967	60343167
2	3058611882	60244100	3029612741	5240608776
3	3029610037	3027608521	9501285150	333379
4	5274601384	342016	339500	54256
5	333869	340295	3027608554	342510
6	339098	3029610892	3027602898	342660
7	606152883	331663	5243612979	3027607242
8	60232931	1230046182	4420607237	5128600591
9	605116963	2000002051	3058612347	5208603165
10	60182029	5223600745	340055	335543
11	5243611620	333703	3058611724	5243613574
12	340511	4420607093	3027602933	9501288634
13	5218603497	343695	336865	5291605588
14	337276	60189842	339023	3076607077
15	60249422	5268602083	3076607996	331831
16	3058608832	335823	5255601070	5240608649
17	3027604494	5289605481	5243613577	5243613614
18	3027608695	343194	334719	335430
19	49665	329748	330126	338588

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	3029609915	9501285192	339585	3076608563
21	3063600550	343437	3029612497	335429
22	5259601045	3027605485	3076608057	52751
23	339811	3029603370	60120086	60263225
24	337105	339159	3027607849	3058611641
25	330204	20600554	337487	49954

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	605304489	5290700220	3029700357	328358
27	333410	4420606322	605184916	325801
28	341061	1007011461	5286700198	53801
29	335037	332306	53651	337899
30	5243611832	3076700359	60230802	340880
31	60097490	3029700099	337289	339266
32	5287605104	330963	341147	341114
33	341681	60270618	49876	331760
34	344993	330078	333933	340578
35	5291601798	5236600054	48353	3029612261
36	334280	3029608505	51161	9501287941
37	3027700698	5272602505	5243612030	16766
38	342595	16479	3029612796	333005
39	5208602587	335279	3027602677	3076608364
40	16219	336860	5284600819	16209
41	336844	331661	5288602010	333457
42	53133	16709	3058612375	3058610712
43	60314200	5291604964	342571	331511
44	5290603748	336770	3029611723	5243613469
45	5296602226	3029612684	333863	343191
46	331931	60165842	4420607245	330725
47	346042	52779	328949	341785
48	51595	3029611837	335276	341176
49	5223602200	334542	341631	340394
50	4420606841	332110	341143	15755

RALI 2006-QA5
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	10658217	10672719	10473690	10610541
2	10501987	10674055	10605655	10622357
3	10611233	10466752	10673519	10623757
4	10704015	10626549	10473604	10394035
5	10692513	10466792	10622199	10704029
6	10473578	10649433	10639325	10473746
7	10706725	10633403	10673533	10473654
8	10643191	10620799	10607649	10466766
9	10607529	10626229	10598345	10625703
10	10689767	10664481	10672911	10611191
11	10636043	10704009	10530725	10602245
12	10530821	10620439	10643259	10649847
13	10619839	10639865	10595281	10622189
14	10704023	10658065	10602135	10473844
15	10652123	10001203	10673361	10626285
16	10651841	10473650	10395624	10699003
17	10395652	10473614	10635193	10605397
18	10704107	10616825	10673687	10584243
19	10667961	10631277	10473842	10474182
20	10610069	10654501	10639941	10643085
21	10020191	10673795	10473812	10474178
22	10597819	10473752	10637629	10473834
23	10635253	10530819	10474916	10664039
24	10667057	10673365	10466794	10591543
25	10395630	10625873	10667651	10606211

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	10534661	10645615	10626027	10610841
27	10639735	10645147	10672971	10642789
28	10647281	10692589	10697671	10637333
29	10673829	10577979	10633355	10612377
30	10473682	10704045	10704001	10566057
31	10672717	10674045	10660255	10479290
32	10458166	10660745	10608395	10492835
33	10622029	10610821	10636351	10594931
34	10643243	10674463	10660575	10626445

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	10602585	10605001	10595377	10602279
36	10474200	10704235	10613435	10637259
37	10636087	10589585	10473776	10652357
38	10704199	10637581	10595325	10644703
39	10592727	10474098	10654715	10596583
40	10488440	10620357	10580957	10647329
41	10626315	10566039	10673495	10602261
42	10625225	10672851	10466808	10704213
43	10615117	10654733	10610953	10704151
44	10395656	10620545	10625363	10673111
45	10645015	10610003	10591717	10474074
46	10591757	10645187	10579813	10647041
47	10631031	10651847	10607639	10477824
48	10637463	10604979	10570023	10473672
49	10502216	10704171	10649769	10474134
50	10285346	10625727	10595015	10624815

SAST 2007-2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	2000244729	12058910	12032714	12041233
2	12064500	2000240456	12069252	12051810
3	12039889	12072278	12035576	12076501
4	12065888	12066831	2000240553	2000240737
5	12064773	12062410	12062454	12070134
6	12060812	12060625	12066443	2000240484
7	12062006	12068855	12034625	12063675
8	12049007	12032407	2000238775	12064110
9	12062992	12071811	12066214	12077070
10	12059492	12065486	2000240511	2000238849
11	12069100	12068718	12066540	12059773
12	12054153	12064332	12031395	12045744
13	12062573	12067511	12065872	12057521
14	12057866	2000240447	2000240758	12050691
15	12065270	12065771	12074595	12065319
16	12067894	12033108	12079797	2000240453
17	12062956	12065917	12063543	2000240393
18	12066888	11930626	12059416	12042426
19	12060877	12038119	12074321	12072744

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	12070068	12059891	12060721	11983765
21	12057565	12063567	2000238768	12068671
22	2000240506	12074714	2000244709	2000240492
23	2000238795	12077285	12051166	12073886
24	12064230	12060399	12076751	2000240664
25	12060675	12042752	2000244720	12056600

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	12059083	12061841	12031604	12067658
27	12078015	12048879	12076423	2000240919
28	12033088	12048123	12072994	12063109
29	12055715	12060148	12075663	12062234
30	12062789	12065142	2000240839	12062860
31	12067320	12064766	12069425	12066889
32	12064331	12064926	12068785	12059929
33	12034414	12050187	12063485	2000240724
34	12043792	12065542	2000244691	12070653
35	12058676	12060650	12058719	12063596
36	2000240399	12062207	12045730	12060003
37	12065962	12032763	12069960	12071885
38	12075905	12072565	12063544	12063823
39	2000240660	12069528	12075973	12062155
40	12063398	12066980	12062078	12060633
41	12062741	12066656	12054866	2000240920
42	12075273	12044418	12063809	12066336
43	12066014	12060939	12075928	2000240930
44	12060084	12071564	12062360	12075065
45	12034191	12066562	12076425	12064410
46	2000244717	12069365	12061338	12068020
47	12063702	2000238753	12032984	2000244673
48	12071441	12067314	12071099	12070598
49	12062811	12056091	12058919	12076879
50	12063558	12071195	12070808	2000244733

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HVMLT 2006-10
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	0051133666	0051133247	0049947770	0000507848
2	0000525980	0000031566	0006013884	1000102314
3	1000101446	0049947631	0049953117	0049954750
4	0000508978	0004992111	0051135421	0000525196
5	0004802518	0049942380	0005020227	4000338080
6	0009631078	0000514240	0000533240	0000522011
7	0006013993	0049924861	0000534149	0049953227
8	0004986790	1000112834	0000532507	0000083116
9	0004919254	1000110312	0004952875	0000421883
10	0009631677	0000050410	0000084460	0001026620
11	0051135505	0010444585	0004975033	0004939310
12	0000082156	0004982435	0000519215	0006014363
13	1000113246	6320600523	0049948711	0000033298
14	1000104477	0000080344	0049944058	0000021598
15	0000034184	0000083553	0000033853	0000539379
16	0000031807	0000515213	0000498626	1000106434
17	6310600119	0000031610	0000517730	0000518860
18	0000521013	0005003983	0051135476	0000538132
19	0000032200	0004800348	1000105416	0049951216
20	0004772653	0000540310	1000104101	0049937214
21	0004920351	0000083474	0000033730	0004778064
22	0009630028	0000050434	0000518233	0049941323
23	0000501106	0049945109	0000507897	0049945303
24	0004987210	0004807137	1000104957	0005000344
25	0009631512	1000105769	0000033391	0006014118

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	0000034275	0000503755	0006014454	0000524876
27	0000032587	0049952778	0000082664	0009631439
28	0009631075	0004998241	0004787313	0000530873
29	0049943321	0005012380	0000029787	0009631603
30	0000031097	0000032348	0000082985	0000531301
31	0000511519	0004804522	0049940748	0049953874
32	0000528596	0004973251	0009630023	4000326385

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
33	0000034518	0049951009	0000534719	0004986022
34	0051135749	0049945808	0000084103	0000083233
35	0051135041	6410600055	0049952095	0049949516
36	0051134974	0006013575	0009631090	0000082742
37	0001025041	0000545731	0004796215	0009630579
38	0010478488	0051134804	0004907101	0004913273
39	0009631310	0000343442	0006014653	0000033166
40	0051135462	0004995114	0000505875	0049950327
41	0000510750	0006013280	0000524116	0000534206
42	0000489500	0000539957	0000033508	4000328504
43	0005000526	0005021399	0004992269	0000515395
44	0000031215	0000032375	0004956553	1000106740
45	0049954446	0000084399	0000531897	0000033397
46	1000112012	0004913596	0004820155	0004720348
47	0051135347	0000032514	0009630520	0005002076
48	0000032521	0004827515	0000031561	0000530303
49	0009630240	0009630690	0000516195	0049943619
50	0009630421	0051135477	0004976361	0006013766

HVMLT 2007-1 (Group 2)
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	0156534135	0122870755	0130008072	0147502619
2	0154899455	0141153827	0155650493	0146095264
3	0154451343	0156768035	0155963227	0155567687
4	0147153958	0153390452	0154767587	0127083753
5	0155328377	0147840701	0131484585	0117070146
6	0147278775	0156041823	0098064623	0155866759
7	0155455571	0154656406	0126486643	0155068989
8	0155867383	0136736757	0146572734	0129760513
9	0144097860	0116676177	0154812493	0125244626
10	0153213648	0153702690	0155772672	0118047023
11	0147086654	0156137939	0126614568	0150803657
12	0156135523	0116675497	0147149238	0152513794
13	0117542002	0155360742	0146380441	0153847467
14	0156033571	0153240063	0155343123	0117163054
15	0151028440	0126446220	0153747132	0136713172
16	0154130850	0155208989	0126967255	0153616688
17	0135235240	0156851830	0152250091	0127324528

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
18	0153610639	0147807985	0146621996	0151977606
19	0155074806	0146107154	0153153963	0147424169
20	0152554761	0152440580	0146956742	0156379701
21	0155871824	0126614112	0155173075	0139582631
22	0152236457	0155755038	0146179663	0155470925
23	0147549409	0138507648	0147041448	0154831712
24	0156460786	0156519453	0156376565	0131829268
25	0154051249	0147835965	0155957683	0155661653

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	0131067165	0154586374	0155462796	0152159483
27	0155081063	0098061951	0154856683	0117225902
28	0156049528	0152452114	0132119226	0073365863
29	0154371760	0117278084	0139303581	0152947856
30	0155451130	0154375145	0147801280	0155555717
31	0155329473	0131214431	0140006958	0141796202
32	0154587758	0125025539	0155330889	0143860953
33	0152236905	0144623541	0150524526	0151474633
34	0154053498	0155131704	0131229361	0153384435
35	0142736640	0126904034	0152826145	0126828135
36	0155869592	0154045345	0127781784	0147251835
37	0146842647	0146682171	0155861383	0124232477
38	0153290266	0127167061	0155243232	0152634306
39	0156214265	0152036350	0156044464	0155069805
40	0156138571	0131951620	0125284326	0146966551
41	0154900911	0146966479	0154039824	0156435702
42	0154580333	0141998660	0127413549	0153420403
43	0117466592	0153467002	0154521278	0154449614
44	0154581165	0147874385	0116963461	0155966052
45	0153699434	0131697540	0153696682	0151913501
46	0156030940	0129273420	0150544237	0127505594
47	0152871158	0132981156	0146264138	0154577525
48	0147410967	0128213799	0141294627	0152795579
49	0142658422	0147132076	0152190300	0153091193
50	0152799451	0147249171	0147396310	0120234609

HVMLT 2007-2

Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	1000119611	0010931431	0001499070	0001526418
2	0000328894	0011371735	0000593798	0011001988
3	0051143253	0011002060	0000600114	0018610426
4	0011353171	0000610436	0010004941	1000116705
5	0011307391	0000602391	0001479050	0001532178
6	0001217359	0000329661	0011079061	0049976453
7	0011159335	0007610067	0000330330	0000629014
8	0011170093	0000609180	0000333552	0000329238
9	0011347397	0000327866	0000578955	0000617894
10	0011064421	0011169999	0001546066	0000591875
11	0011312543	0000622142	0000589549	0049972143
12	0000603282	0000590174	1000119435	1000125611
13	1000126245	0011370041	0000599605	0000589515
14	0000330159	0001497658	0001502977	0000590653
15	0000596148	0000610535	0000329327	0000037861
16	0049975904	0000085460	0000331186	0000624478
17	0011100929	0000632661	1000121797	0011351929
18	0000616052	0000612663	0011320319	0000573733
19	0011336897	0000585810	0000332302	0000598532
20	0000086250	0008611084	0000624049	0000330693
21	0011238887	0000605071	0000037310	0016025663
22	0011211707	0008611143	1000126005	0011342347
23	0010900512	0011309513	0051142661	0000085993
24	0010904838	1000126017	0000333044	0000331520
25	0000085792	0000334007	0000159686	1000117486

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	0011315267	0000622225	0000626168	0000086171
27	1000117322	0000330451	0000626085	0019611239
28	0000329534	0001537692	0000331182	0000573287
29	0049975797	0011148879	0000162110	0000584227
30	0000330314	0000612952	611034736A	0015610415
31	1000126993	0000622449	0000591560	0010818445
32	0011337257	0011285779	612209279A	0009611135
33	0000606533	0000331913	0017610173	0000160872
34	1000120218	610317847A	0018611036	0000328992

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	0000332466	0000329297	0011319773	0000162085
36	0000593913	0000330222	0001480068	0011278985
37	0000598672	0000627851	0000592352	0000595603
38	0000330150	0001466294	0000613513	0001517291
39	0000568295	0001535662	0000578625	0008611056
40	0001316003	0000576900	0000623991	0000592287
41	0001457258	0001447205	0000086453	0049974662
42	0049973074	0000574624	0000330220	0007611153
43	0011101773	0011321629	0011315829	0001524725
44	1000126794	0000587931	0000329951	0000636262
45	0001312615	0000333549	0011003634	0000329503
46	0011382005	0001546722	0000604009	0000329501
47	0000085547	1000124910	0000333791	0000596767
48	0011362879	0000332114	0001496418	0049973948
49	0011300647	0000036949	0000328389	0011134311
50	0010896186	0000616391	0000589572	1000119375

HVMLT 2007-3
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	0144901428	0144866589	37630	0106957111
2	4683462	49955322	37083	5156534
3	4762142	5156260	5131305	49966492
4	337182	37270	1000126425	5096953
5	4739207	37529	0106602436	49958002
6	4702015	1000124927	5101076	0144901865
7	5147525	5100870	0145475026	6015550
8	4953675	576280	5020607	582205
9	5108139	5110978	1000120498	38447
10	51144476	40164	51145135	1000120125
11	5146469	583294	6103236	6112974
12	0145870044	6015762	0106758436	1000122554
13	5154885	37601	5091640	1000122423
14	51144909	38059	5151295	5154919
15	574871	37554	1000121513	540930
16	4716577	0145356622	40256	0145605796
17	0144898251	6016074	5155890	0107131955
18	5159504	587006	1000120945	5016126
19	5142500	580696	51144480	0145610879

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	576504	5107453	0145690822	1000115753
21	1000115487	5008255	0145864609	39660
22	5081583	589754	0145465787	1000123166
23	5113345	5150230	0144903366	107220238
24	5104500	0145862959	49947136	6015770
25	85022	49954336	586198	37136

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	0145153243	5023734	49959137	1000122422
27	5120738	5100086	38587	0038760948
28	1000128758	0107378150	84926	0144886306
29	4703187	5094065	37736	0106932759
30	586537	587865	591982	0144904331
31	39382	37142	5103502	5138268
32	1000113059	5131727	1000119341	593236
33	4985180	573402	51145692	5102348
34	9634064	1000127391	1000118715	6015676
35	585612	38516	5121637	1197368
36	4695318	1000119139	588608	1000121833
37	0000012242	1000119406	51142813	49961840
38	4657615	5105002	6111491	556712
39	564781	0106774912	9633822	5003264
40	5139191	598003	5101258	0106429319
41	5108808	38328	571737	1000123868
42	37150	525402	0107224396	0107204117
43	1000122425	36820	576827	107172231
44	4962544	37401	0145041653	39477
45	4683371	0145862488	5152772	0145867636
46	4996575	5162565	37649	51145945
47	4707519	585216	0144902178	0036198216
48	1000124768	1000128593	576538	5161757
49	51145548	5092580	49966298	0107188591
50	4764940	5144597	49948274	0037934429

INDX 2006-AR6
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	123054252	123085365	122578856	122418301
2	123083035	122417977	122418044	123006527
3	123164864	123059271	122418480	123108934
4	122413617	123040804	122418234	123035691
5	123043669	122418024	122401336	123067840
6	122944512	122908220	122420926	123118617
7	123076944	123103117	122414128	122917092
8	122418507	123251130	122981157	122419324
9	122603060	122949241	123152255	123027316
10	122788826	123038846	122418259	122418037
11	123017631	122418689	123046985	122776639
12	123033952	122414044	122980925	122998779
13	122417955	123059581	122414664	123010683
14	122418472	121744692	122418525	122425861
15	122418109	123009959	123173031	122956078
16	122550441	122419342	122984959	122952933
17	123078477	122668328	122418518	122669731
18	123070571	123254574	123016660	123168749
19	122418620	123019312	122949460	123253388
20	122413837	122927728	123032568	122876547
21	122940866	123015400	123218290	122949732
22	122422135	123007133	123152257	123025703
23	122419284	122414050	122417488	123189533
24	122965381	122416047	123061207	122417529
25	122419346	122418443	122418437	122952070

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	123131360	122984165	123082359	123129008
27	123018298	122413975	122399497	123070581
28	121744892	123181451	122793686	123068015
29	122414427	123175309	123058224	122824139
30	122666323	122419406	122949400	122418731
31	122923396	123058691	122855489	123008657
32	122526944	122415967	123014668	122940250
33	123014151	123001568	123021226	122418780
34	122415791	122933001	122777343	122915878

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	122419370	122413722	123070592	122793727
36	122911253	122425863	122931182	122984923
37	122993986	123113927	122992732	122847337
38	122416153	123089113	122967439	122792547
39	122415944	123019321	122962887	123176532
40	123020865	122418547	123140655	122418111
41	122416050	122899971	123184227	123034584
42	123140625	122425887	122418655	122983604
43	122753497	123136516	122973316	122422142
44	122452698	122414252	122418645	123070583
45	122418036	122967329	122871419	122988668
46	122755687	123045787	122467599	121738789
47	122414230	123059642	122861422	123206452
48	122851823	122417749	122418074	122864952
49	122887929	122968191	122415965	122418519
50	122405105	122824131	122670703	122984910

LBMLT 2006-2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	6658988	6650467	6667994	6649136
2	6652328	6651016	6633055	6660807
3	6664065	6655265	6651340	6647418
4	6538084	6663447	6606626	6643484
5	6647295	6647109	6626734	6633435
6	6592018	6623131	6645476	6570343
7	6660557	6641807	6653384	6667035
8	6662838	6618943	6658852	6660756
9	6623541	6638459	6634276	6650623
10	6652206	6648621	6595175	6670262
11	6658206	6653453	6660616	6657700
12	6653014	6645901	6670933	6554085
13	6579751	6658529	6644247	6666329
14	6647927	6654176	6647549	6616802
15	6642505	6641897	6649235	6654107
16	6647301	6641712	6621325	6636656
17	6662768	6649263	6647571	6586803
18	6641381	6649644	6651866	6657148
19	6406853	6644124	6600685	6593527

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	6657512	6654871	6664882	6669236
21	6652067	6650526	6640037	6652711
22	6650017	6645939	6619081	6665319
23	6657303	6651677	6654150	6645332
24	6632851	6657253	6647032	6644488
25	6639954	6653131	6643693	6669482

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	6603060	6450376	6637818	6666617
27	6559203	6641679	6643793	6665001
28	6640184	6647699	6650225	6647921
29	6653462	6647086	6653385	6665194
30	6646410	6664927	6643761	6667328
31	6616927	6619362	6651756	6668902
32	6669673	6653179	6670244	6643697
33	6669951	6605891	6652072	6532234
34	6668160	6642649	6640560	6643621
35	6655082	6628001	6598245	6657149
36	6656941	6661684	6610288	6633336
37	6589796	6644583	6645194	6607509
38	6644306	6656381	6630167	6655606
39	6609646	6653887	6649310	6659930
40	6656839	6593900	6621769	6657294
41	6635783	6655035	6640325	6642114
42	6637802	6644348	6644600	6645409
43	6606342	6653576	6608721	6652536
44	6649696	6669318	6366564	6650253
45	6613508	6665914	6669484	6656648
46	6646732	6646305	6658877	6659167
47	6621132	6539365	6658695	6652412
48	6671118	6648881	6646184	6655468
49	6657537	6660371	6613676	6650794
50	6638249	6648667	6557055	6648778

LBMLT 2006-8
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	6769462	6759588	6769111	6767252
2	6769473	6770669	6765060	6767537
3	729350603	729329391	729400622	729371906
4	6768395	6765443	729318592	6743857
5	729333120	6755437	729341479	729359000
6	729359026	6767400	729377739	6766283
7	6763427	6761205	6767300	6765099
8	729373597	729357772	6761852	729352278
9	729352062	6768991	6761157	6761487
10	729322651	6767541	6761521	6762995
11	6767695	729376509	6760593	729326520
12	6758406	729351247	6765330	6764505
13	729327007	729408518	729355875	6763130
14	6767034	729333682	729346551	6767488
15	6763691	729334607	729345363	729435230
16	6762921	6764165	6769113	729374884
17	729385716	729337410	729400242	6753518
18	729393983	729324764	6759163	6759801
19	6762009	6770479	729356758	6764746
20	729391383	729311506	729408682	6767984
21	6645431	729391870	6765649	729330001
22	6759354	6764987	729396820	6762874
23	729407429	729374546	6766591	6753880
24	6756571	6763553	6759904	6760588
25	729381251	729355917	6767623	729353318

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	6762230	6763890	729372813	729342295
27	6768015	6762171	729355305	729318816
28	6749411	6764678	6767854	729427260
29	6763674	729390930	729336669	729343434
30	729332429	729349357	6766860	6760080
31	729415653	729365601	729328468	729374538
32	6762143	6767201	6763914	729328104
33	729445270	729387712	729341602	6755216
34	6765684	729429951	6760942	729329631

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	729325092	6761760	729345868	729377325
36	6754723	6761015	729348805	729394809
37	729389635	6757850	729380980	729358754
38	6756539	729374082	729337907	6766970
39	729361089	729330027	6760215	6759975
40	6768277	6766365	729412205	6765383
41	729381863	6765271	6768951	729344051
42	729323550	6768892	729350884	6766332
43	729414003	6766165	6763463	729359869
44	729366211	729380451	729341644	729335737
45	6763526	6760135	729325407	729343210
46	6763768	729341271	6753315	729411132
47	6766076	6762753	729361279	729417139
48	729342568	729341131	729377259	729391367
49	6757889	6762139	6754820	6758559
50	6765057	6766265	729370098	6757856

MHL 2006-1 (Group 1-A2)
Initial Loan Sample

Count	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	40419598	40489074	40491166	40489119
2	40493068	40495024	40396721	40492466
3	40485802	40499492	40508984	40505398
4	40497359	40511902	40442863	40507610
5	40367304	40507251	40508940	40490067
6	40493096	40497164	40490012	40475901
7	40492189	40490575	40502264	40512740
8	40498512	40478289	40501003	40506434
9	40483833	40499352	40498696	40511064
10	40504893	40498813	40504179	40494782
11	40488526	40434724	40499627	40491808
12	40509983	40431524	40493791	40510178
13	40476265	40457535	40457324	40403719
14	40490650	40494429	40432645	40482792
15	40494453	40503951	40493092	40474681
16	40491126	40405425	40486818	40505444
17	40486137	40496806	40480664	40494305
18	40433485	40518742	40511528	40510553
19	40490810	40505402	40483080	40424318

Count	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	40496036	40484715	40485913	40480473
21	40497395	40450645	40507901	40420156
22	40484628	40477668	40491910	40483609
23	40493683	40506565	40515238	40456700
24	40447400	40502803	40492927	40496295
25	40490593	40492708	40513146	40500255

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	40492413	40503009	40482062	40477194
27	40496558	40501981	40450749	40504712
28	40510573	40497228	40502125	40507773
29	40496825	40484398	40482921	40488259
30	40508948	40494711	40488331	40508912
31	40493539	40427073	40505841	40514462
32	40485886	40487912	40447813	40482207
33	40489473	40436234	40495958	40497794
34	40495570	40516911	40510913	40473714
35	40412939	40492022	40509905	40507442
36	40485305	40498093	40493268	40487862
37	40484387	40487255	40431561	40426175
38	40508962	40499695	40466833	40435512
39	40473493	40426825	40430400	40493843
40	40420701	40436193	40501868	40501228
41	40463980	40509038	40485389	40504207
42	40483224	40462871	40493680	40506436
43	40491343	40516718	40502998	40500685
44	40482619	40395392	40495675	40495737
45	40525642	40487203	40430808	40522320
46	40506120	40432858	40450991	40500919
47	40523179	40514915	40502383	40511393
48	40482747	40429013	40499405	40433537
49	40474975	40509407	40491849	40482056
50	40487281	40452452	40494721	40479736

MHL 2006-1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	0040506488	0040432602	0040512765	0040478738
2	0040416657	0040500242	0040468163	0040500583
3	0040490896	0040502636	0040497517	0040498221
4	0040317365	0040499735	0040511423	0040505135
5	0040398879	0040500525	0040513172	0040516236
6	0040433128	0040441489	0040500519	0040496688
7	0040410793	0040427860	0040474856	0040508316
8	0040470163	0040367265	0040496481	0040474618
9	0040427872	0040502900	0040436810	0040428931
10	0040489657	0040440137	0040494523	0040472052
11	0040509284	0040511083	0040424854	0040494723
12	0040433307	0040458128	0040489794	0040458045
13	0040433702	0040494827	0040503369	0040471339
14	0040472362	0040427211	0040404567	0040497773
15	0040418337	0040466480	0040500531	0040517357
16	0040366978	0040349880	0040500261	0040471360
17	0040508951	0040357426	0040511532	0040394517
18	0040505366	0040512549	0040436159	0040442018
19	0040478812	0040432245	0040473363	0040503825
20	0040399643	0040433523	0040344975	0040453153
21	0040497472	0040515273	0040502839	0040415872
22	0040472291	0040510149	0040497152	0040466348
23	0040460544	0040493391	0040503559	0040513847
24	0040495080	0040450701	0040469828	0040457510
25	0040350369	0040457066	0040511518	0040490031

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	0040498295	0040472523	0040511717	0040458161
27	0040435692	0040500561	0040474285	0040498493
28	0040471291	0040501122	0040498228	0040516844
29	0040362475	0040499859	0040489557	0040496395
30	0040429445	0040501391	0040463139	0040511271
31	0040501176	0040509196	0040476147	0040473831
32	0040401028	0040427488	0040492281	0040518211
33	0040409352	0040480873	0040418761	0040503944
34	0040422842	0040474884	0040459487	0040510666

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	0040490838	0040496157	0040402024	0040512447
36	0040430035	0040419122	0040505470	0040490394
37	0040467402	0040425046	0040477224	0040488764
38	0040499411	0040513543	0040497477	0040421929
39	0040494753	0040359253	0040507889	0040506052
40	0040487651	0040405452	0040363630	0040473792
41	0040473157	0040497368	0040502913	0040497755
42	0040468757	0040491821	0040502300	0040504506
43	0040480104	0040488594	0040498395	0040513462
44	0040502262	0040471548	0040488009	0040507346
45	0040502555	0040375419	0040484091	0040519276
46	0040505845	0040503274	0040500198	0040440494
47	0040474938	0040367153	0040469954	0040474815
48	0040474524	0040500258	0040471888	0040503333
49	0040424355	0040504229	0040445925	0040461579
50	0040394917	0040511072	0040480178	0040498237

NAA 2006-AR4
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	0171593385	0171624921	0171639988	0171809748
2	0171655093	0171601866	0171601659	0171644484
3	0171458408	0171601799	0171601674	0171601548
4	0171601502	0171716553	0171611123	0171641580
5	0171540491	0171749460	0171601832	0171601424
6	0171601665	0171592735	0171643068	0171697940
7	0171718379	0171744878	0171835205	0171745515
8	0171718089	0171601383	0171601765	0171611076
9	0171624902	0171748557	0171551783	0171748546
10	0171544893	0171603150	0171601387	0171601885
11	0171749468	0171601571	0171601819	0171640183
12	0171710426	0171601483	0171601355	0171488372
13	0171601975	0171601405	0171601427	0171611075
14	0171624903	0171500277	0171601913	0171601974
15	0171601725	0171689073	0171655083	0171748568
16	0170829267	0171640173	0171601628	0171488390
17	0171749450	0171711654	0171624995	0171640194
18	0171601907	0171640156	0171616415	0171459911

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
19	0171767123	0171383951	0171601530	0171711646
20	0171615267	0171641565	0171506594	0171611085
21	0171745521	0171601805	0171641587	0171625019
22	0171643102	0171587226	0171624896	0171540305
23	0171528198	0171601581	0171601598	0171615211
24	0171705345	0171601719	0171498429	0171601724
25	0171624890	0171710428	0171551820	0171601834

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	0171601490	0171573022	0171718370	0171540417
27	0171584913	0171744871	0171498420	0171601453
28	0171745141	0171581054	0171711665	0171710421
29	0171616408	0171611126	0171800642	0171710409
30	0171458410	0171601789	0171601539	0171611081
31	0171601616	0171601800	0171641594	0171689074
32	0171601735	0171601677	0171649454	0171125160
33	0171212030	0171601362	0171644497	0171450852
34	0171601370	0171800643	0171644543	0171641556
35	0171714277	0171748572	0171056271	0171655113
36	0171647062	0170793588	0171063461	0171634873
37	0171640175	0171479625	0171601756	0171624852
38	0171549806	0171601829	0171601893	0171616419
39	0171601592	0171450867	0171655112	0171644478
40	0171616417	0171834757	0171640120	0171640151
41	0171644534	0171749106	0171655120	0171643094
42	0171651545	0171601537	0171611118	0171644820
43	0171601863	0171760215	0171611087	0171714233
44	0171624944	0171450873	0171645359	0171655118
45	0171744861	0171500275	0171601492	0171601591
46	0171640148	0171355317	0171601943	0171450863
47	0171624979	0171749463	0171711662	0171644521
48	0171711663	0171601465	0171800659	0171551784
49	0171624907	0170340194	0171601532	0171777602
50	0171601535	0171601917	0171800641	0171624894

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Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	0171923309	0171910487	0171910595	0171920511
2	0171839780	0171968648	0171903932	0171710465
3	0171824572	0171910353	0171910512	0171968615
4	0171807375	0171932104	0171807060	0171903927
5	0171910475	0171807127	0171940906	0171940628
6	0171839658	0171815173	0171811964	0171940609
7	0171980438	0171932141	0171932092	0171811206
8	0171811356	0171710411	0171910334	0171574433
9	0171823850	0171811950	0171834682	0171887036
10	0171823832	0171807061	0171932113	0171811257
11	0171932083	0171887053	0171812005	0171809849
12	0171923795	0171869356	0171811338	0171923369
13	0171910437	0171940634	0171852717	0171809766
14	0171898385	0171968621	0171932082	0171795419
15	0171971852	0171811280	0171923304	0171868962
16	0171812049	0171910566	0171980452	0171823839
17	0171910582	0171940636	0171898393	0171809823
18	0171710495	0171940625	0171823878	0171819054
19	0171809773	0171809855	0171910489	0171812468
20	0171868978	0171856994	0171812017	0171812042
21	0171824450	0171910627	0171809878	0171811992
22	0171718494	0171812004	0171910570	0171968628
23	0171811966	0171898373	0171903912	0171940639
24	0171700980	0171887061	0171986801	0171811461
25	0171968606	0171811442	0171521984	0171811444

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	0171649908	0171940608	0171710441	0171868945
27	0171815197	0171956537	0171718433	0171887028
28	0171871103	0171910596	0171918001	0171878941
29	0171980472	0171811154	0171823842	0171807111
30	0171823861	0171940667	0171932056	0171877780
31	0171811458	0171811119	0171823854	0171910317
32	0171824466	0171875318	0171811397	0171856339
33	0171823841	0171823866	0171809875	0171795421
34	0171624920	0171811335	0171710430	0171898388

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	0171932041	0171811948	0171800171	0171811161
36	0171811375	0171710484	0171807068	0171811989
37	0171998830	0171811163	0171812012	0171811184
38	0171811469	0171824583	0171923357	0171549955
39	0171809796	0171811417	0171923343	0171903934
40	0171811126	0171910467	0171812021	0171831177
41	0171926264	0171858028	0171838910	0171710474
42	0171823835	0171988016	0171811423	0171868964
43	0171923366	0171839387	0171968624	0171714275
44	0171815194	0171991994	0171815203	0171812053
45	0171980433	0171991981	0171871468	0171910483
46	0171780257	0171872808	0171809164	0171811285
47	0171811368	0171932074	0171968584	0171968614
48	0171812006	0171823846	0171940645	0171811207
49	0171923353	0171968647	0171903928	0171922063
50	0171940883	0171718423	0171912038	0171910310

OOMLT 2007-2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	101065247	341038787	651020459	61075625
2	341037630	831070830	231087757	371042533
3	331051365	841021033	171037808	571014594
4	231086635	661020041	521046110	581015123
5	211049390	831070749	551023974	661020020
6	101065370	161050815	211051160	231089176
7	161051550	331050543	171037625	621020214
8	341038411	961072950	671016586	671016101
9	121050366	351038252	151037664	661020373
10	31045655	551017691	31046260	621020591
11	521048453	351038291	101066517	671016042
12	651023283	101061548	831070824	831070750
13	211051303	661019958	341038888	571010352
14	621019412	551020454	371043219	571011387
15	631015931	371038296	671015685	111002681
16	581015020	511050461	101066964	31046255
17	151038985	61071066	371038602	191035661
18	331050249	831070771	841023049	321039731
19	621020176	231085345	551021220	141052857

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	151039007	581014069	211051282	371040656
21	651023205	661019465	521048084	31046068
22	191035797	231085591	831071050	571009215
23	421001838	521042565	371041792	631015879
24	371040808	521044133	831070269	321037144
25	371037594	551018281	551025316	621020568

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	621019702	191034401	581014594	511052756
27	421001256	371038650	211049003	661020407
28	421000809	521043541	341039045	141057020
29	161051648	351038500	101062792	521048791
30	551020111	651022109	191033811	341038915
31	51074245	831070747	171038036	671016175
32	581014316	551018153	371042868	621020906
33	581013413	831070809	611026380	231088891
34	371040645	331050972	831070671	321039416
35	831072201	101067361	831070814	101063831
36	871006632	521042945	61071786	511052546
37	211051537	841019877	231087464	141057917
38	621021233	141056094	101064116	371042282
39	151040068	551017704	351040843	331052046
40	581013230	321037367	291007439	841024086
41	961073446	831072526	141057634	831070801
42	661020390	101067250	191034834	61074669
43	421001303	421001672	661020549	211051757
44	421000604	551019098	121048618	521048244
45	171037295	61075932	231085306	151039281
46	411000786	341035999	511052966	141057775
47	521048298	841020294	581014564	61075999
48	331051231	551018788	551022195	581014953
49	671016256	321039233	411001134	671016181
50	521046833	371041509	521045520	661020359

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Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	150774974	151480829	152178646	152275178
2	151583218	153234778	152754974	154067722
3	153530209	67466359	152642435	153871918
4	153059654	153345681	152490728	153967021
5	152154175	154428254	153162029	153165931
6	153005855	153179924	153811807	153760822
7	151596731	154155741	152560066	153060736
8	153817085	152956066	153304589	151807658
9	153130281	152147773	152298808	152866893
10	154587117	153388772	154394514	153434071
11	152540449	153722574	153117338	152785374
12	153602156	67568519	152971115	151372992
13	154249429	153496864	152940912	153944772
14	152385621	152901773	153955067	153112982
15	153070933	154313142	153318811	153355573
16	151441771	153223268	154132476	153221262
17	153296751	152808739	153906607	153194402
18	153163506	151215308	151936762	154002935
19	154050413	152899118	150903268	152897161
20	153422621	153432679	152901286	153151584
21	153542592	154148415	152554812	151638541
22	152657722	153416607	153599535	152831384
23	153789755	154393508	153429477	152941712
24	152789277	153111703	153595483	153670542
25	152901252	151147618	154107528	152984829

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	153249271	153172028	153113436	153378484
27	152574612	153353164	152953378	151377678
28	153781109	154457311	150061554	152851234
29	152100681	152804589	154037782	153456736
30	153886478	153332986	153951439	152595369
31	153316229	154034151	153468657	153378823
32	153977699	153167945	152752093	153457247
33	153657036	145875324	153276498	153916986
34	152083796	154238968	152908562	154034664

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	153132659	153691761	153126032	152783098
36	153311279	153498282	152776019	153694765
37	153785795	153807185	154214068	153080569
38	153433537	150543312	154094163	153255443
39	153905054	153664206	153945159	150751311
40	154714612	152594206	154570469	153443189
41	153971957	152373643	150879641	152742631
42	153705488	153204573	154000889	153887559
43	152523957	154408611	153492434	152722393
44	153216676	153048681	152494894	152327284
45	153369483	152656906	152836789	153295068
46	151734498	154511588	150889079	152689527
47	153495502	152530267	153389184	153626783
48	152535829	150591089	152998001	153019526
49	154019426	152302485	152215687	153656574
50	154338784	153645452	151536992	152912952

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CWALT 2006-OA3
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	116991097	117077915	117368095	116966389
2	68216778	117213292	115801587	120509185
3	118035566	124488542	105027210	122181877
4	117569957	116962829	123559582	117578902
5	117696618	106234032	118069218	125781892
6	127319496	124501982	127399588	105947596
7	117240839	115782528	117365943	124842397
8	121947005	106757314	125916329	97906012
9	127145686	116256092	122443847	126971239
10	127600767	127586629	125441519	124183884
11	125873334	113566348	127499833	120998726
12	117460016	132414095	125487388	117233511
13	127260366	117061649	122570621	116848935
14	117147396	122599550	111932048	116703325
15	124775270	124900768	115255117	124714912
16	127408349	126721614	123903578	125853100
17	125186701	127585501	127673282	125401322
18	117462888	117026405	124685277	63480808
19	117199507	115408398	117417910	105459216
20	132208354	121990332	121030466	119970013
21	132962650	118056232	120702118	126757076
22	107296419	125971958	117866551	124154381
23	117298231	117813648	114010995	124896037
24	120377602	122599270	120336604	117205771
25	125550551	117618395	115644823	97856654

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	126699306	113276566	117567381	117187841
27	105085369	117420278	98071360	106897132
28	124713391	77154836	117085044	122089916
29	125285814	117361447	123550387	117591872
30	125210541	106608528	123028335	105829773
31	125744902	124469349	126467533	116778150

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
32	125254891	116823212	116523742	117738415
33	117479786	125886434	115649248	107209632
34	97892546	98006091	120643784	115009201
35	97725531	114885619	116252996	114620791
36	126896665	107328159	124705467	105592616
37	97867791	124879999	124681781	115643183
38	124694062	97880337	132398324	105885748
39	125108375	123143312	132224204	123917306
40	113503731	120644498	122485204	120248132
41	126811837	124624725	117482106	121625399
42	127842048	125755483	127833015	117333515
43	116606976	126037851	115226136	107109595
44	115915857	120015139	117519743	116164640
45	97871328	125663771	132211538	117381753
46	117033126	106835212	127073104	127604543
47	126964350	132125555	108701528	107268087
48	123928964	123646798	132322635	121511464
49	9854656	123650901	127147078	123761526
50	117665206	125015745	124908393	124413835

CWALT 2006-OA8
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	135545261	104529856	135518844	135429392
2	118280837	127278401	135796397	136496188
3	135807785	133096367	44784281	118367431
4	134669537	134257774	136205307	135376288
5	107797391	132592562	136214260	125301900
6	118938193	103930102	118894500	135368154
7	133089038	135188974	136112850	132356667
8	134202520	57206241	134524547	118619322
9	134901895	134605117	133569732	132216195
10	135421436	136216836	119364573	119147938
11	134389207	134853132	119559221	136782677
12	134803359	134577103	127900722	132501951
13	126678856	134792355	119328320	118914455
14	135176128	132379811	134996570	132716631
15	118816714	118213556	118112840	133009839
16	133730846	134344416	118702308	133851633

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
17	135288753	119545667	113721971	135570756
18	124252619	117283861	135121572	133642579
19	135431957	134296836	135322187	119058231
20	135295850	132691464	119356076	118375920
21	134899479	133118930	119266209	125017802
22	134137585	133561379	134013288	135290249
23	134428446	117913701	134671800	119293852
24	134883637	135406577	118760875	133217652
25	133678322	118787999	136459999	134848801

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	135000419	118855543	136304111	133265850
27	134597700	119270129	127353721	134999579
28	135542684	98008380	134284910	136221325
29	117874792	119081417	134773129	134861799
30	118789039	134156662	136474050	119056254
31	134994458	133683955	133892297	136637707
32	134519794	118854047	118997713	123579822
33	127781687	134973096	133819463	127796480
34	134690287	133274775	118957780	135004888
35	119008946	134850755	119215386	134378054
36	134236227	135539124	136215156	44777912
37	134602325	133648360	134382958	119392272
38	127483830	133757756	134462351	133403340
39	118618417	133969344	119294228	119355748
40	134879261	118910782	134185174	119306622
41	118911590	118760771	118794263	136450829
42	134675286	135171628	135335153	133560518
43	134596780	119189255	135886249	135420340
44	118901125	133155338	118998745	133814214
45	132973614	117490979	118365383	135083928
46	134725450	136209371	127727844	126297991
47	134340399	134515914	134856928	119416883
48	117609914	118742105	132543452	133526545
49	133876831	118900245	133993886	135127404
50	133077928	118701900	132898457	135811769

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Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	93270031	94068996	92259951	94487675
2	93790152	94010550	93161198	93676559
3	84271410	93183952	92591999	94185238
4	93040392	94036670	92984111	92324995
5	93136877	92042993	91923797	92997071
6	93493351	90998030	86541638	89154033
7	93070472	91984112	92766914	89146633
8	93398311	89344634	92059476	92931997
9	93962355	90652231	92024835	92872274
10	93512598	92950278	93377877	93044998
11	94639754	94031119	93621597	91301317
12	94470390	93174118	84701176	93557270
13	93508752	93891711	93698991	92822279
14	93135275	94549391	88932637	92436872
15	84191816	93979714	93404838	93786994
16	93528073	93591352	92434356	90076639
17	92351279	93739274	92885193	94151271
18	93910396	93351195	87997037	93494912
19	84469493	93187433	92597194	93408755
20	94164910	84715531	92880350	94886314
21	93252591	94773595	93215754	92289677
22	93493112	93917193	92558238	94381837
23	91751115	94008513	92468396	91497511
24	92615350	92766278	93710358	93540672
25	93491512	92589514	93169878	93187078

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	93128718	94912516	94137874	93528875
27	91730911	93706992	93922110	88697594
28	92516434	92742196	92548031	94784196
29	93721710	92923952	93347078	92914191
30	93384196	93551836	94081551	93664910
31	92362359	93122117	92968478	94696358
32	92965193	92144476	93180677	93460632
33	91178558	92582758	90837550	94201837

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
34	93135994	92824432	93395796	93741312
35	92916956	85186039	93094233	94286671
36	93070431	92265594	92879634	92735950
37	93903953	92657352	92746510	94334190
38	90753914	93160679	84718774	93862910
39	93524593	93289510	93349470	87327995
40	90928714	92116599	94616273	93511673
41	94388717	92409358	92514678	93716231
42	91373472	84680651	92359553	93970390
43	91684639	92173079	94322278	92144518
44	92531599	93213635	94688512	93150795
45	92551076	84427095	93364677	86643871
46	93255834	94212552	88082474	93225514
47	93399475	93875037	88224555	85131696
48	92882554	93401792	90479874	92694397
49	93247278	92245430	83535898	84723931
50	93359271	84445410	84487172	94182995

CWHL 2006-OA5 (Group 1)
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	97863903	124063626	121029234	115826430
2	116779166	116624315	109732758	122254225
3	97867023	117058249	124919645	106866496
4	9846872	125513505	122390687	104543865
5	125136551	115884013	121130439	125765376
6	111528743	117289886	97887690	117093485
7	122039920	117187729	116476400	116081958
8	123308352	97899763	126133894	116805129
9	122722949	125192104	124107948	44677348
10	123852337	125016513	122877604	125288150
11	98058327	117105623	116594535	117099206
12	124519898	124228008	125923002	124999063
13	121653056	122554479	116032576	125570254
14	114887125	124841797	123987226	124853219
15	125656432	98003227	125906771	117168319
16	106920071	125023594	120631363	94488325
17	117332507	44726962	124720072	125737072
18	123828775	116128452	123837648	124898488

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
19	126642778	125899376	116419041	116611817
20	121070506	121166633	115888310	117240423
21	116990088	81498444	124831340	116894196
22	117113448	122093458	125458218	125396206
23	125467209	125528433	117185113	116958044
24	124597064	116824884	107296283	115853345
25	117587568	123680343	123677967	116831413

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	124707719	116183571	122038984	106405389
27	124898416	121494062	116399046	125242322
28	124694646	105855840	116000916	115755469
29	115986050	123924811	107268263	116023719
30	116199981	94162932	124765833	125255227
31	116678857	123960622	116774301	116578477
32	123989867	122936540	125543260	117388242
33	125454973	116607689	117080620	116345752
34	123998460	125569966	121555030	116235010
35	123339889	117243592	121010026	116195764
36	124000948	111094749	116393886	125988626
37	116900413	117015004	116593383	124900464
38	125987174	117536305	123456088	126399734
39	116966317	97900699	126618529	124852414
40	116864321	126615080	124246194	117421166
41	97864831	123693441	124688822	105774494
42	124717136	116730104	124717320	121540490
43	115932867	117057977	116876810	97874320
44	125290040	117059097	116370539	116960925
45	123513437	116826476	117272571	116055819
46	116669112	114560110	117228942	123975984
47	123070366	97855886	116490682	123407661
48	116204957	116457662	117518383	124513578
49	124832292	123919867	124866199	116237090
50	115927315	116788031	123925811	116973990

CWHL 2006-OA5 (Group 2)
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	125255787	121736551	124541341	111881048
2	125410747	97888906	117526088	125547583
3	123629433	115625469	117159918	9848150
4	116859264	116638996	117379809	117061793
5	124107964	110977866	120987081	125021106
6	117389130	125647854	79959331	115806379
7	116282360	124848214	121038395	124507398
8	116660151	125408427	125098905	116892044
9	116080150	116565859	116622618	116358553
10	123381826	126521186	97992962	116899245
11	124439748	116832773	122269113	115753717
12	125339952	106866376	117030814	125189117
13	126719934	125200603	123414040	125185869
14	124708327	116721311	116783543	124688702
15	125479323	116711734	116402455	125621876
16	97872008	116744258	97916901	123423663
17	124596800	116182443	116826372	125476979
18	106577291	116861792	124670350	116870361
19	115888214	125098505	124600408	123929476
20	123250634	116268110	123080039	116612617
21	116704005	117007395	97887282	124671092
22	125409187	124232309	117123377	126218698
23	116957212	112266374	113276236	125252691
24	124530724	117256561	124150989	125062451
25	116739609	124662041	117050328	105221354

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	115627149	123925819	116389181	117483658
27	122433690	98003427	125252635	124348498
28	116088359	120184383	122404501	126339635
29	115954278	110414835	124443284	117443589
30	117115096	117113464	116454045	116986312
31	116887316	116541888	116932249	125185285
32	97906004	124846054	116221975	104655287
33	124603400	123060188	117384481	117115120
34	121256771	116642413	116236810	116929049

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	116676497	117014315	97914813	125899392
36	124159990	125101033	116977087	117049264
37	126427747	116159176	116672777	117099902
38	124656120	116858848	124509154	116345960
39	124900832	116761284	125791662	116959397
40	124356307	116250476	115888110	97993538
41	124842629	124518242	125185925	125505816
42	99286384	126716662	116689979	97859550
43	116622178	125092384	125340784	97856566
44	124613986	124865999	125701151	117118585
45	115729634	116965981	125253107	117370360
46	125088624	116435067	123426799	115684684
47	124845901	125182156	117163606	117440645
48	125715443	107000910	116877842	125182564
49	97909988	116602552	116611865	116219255
50	117063186	116132884	116305779	116269710

FHLT 2006-B
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	8000084158	8000090878	3000159465	8000083455
2	8000076857	6000236229	8000087221	7000205427
3	8000091953	6000235548	7000198517	1000323578
4	6000224166	5000219649	5000205223	6000236696
5	5000216917	5000215477	7000206066	5000219683
6	8000090143	3000114893	6000233035	3000123428
7	5000192093	6000229402	3000138631	7000200828
8	6000214016	5000212421	6000230761	7000201802
9	7000195055	3000141226	3000139460	1000307942
10	8000086756	6000232115	3000167216	3000158818
11	8000094015	3000083146	7000188380	5000220585
12	1000323795	6000231335	3000163018	6000230666
13	7000205012	6000230025	1000321322	3000132817
14	5000199113	7000197118	7000202915	7000204989
15	8000087374	8000090324	1000321937	1000320148
16	6000224784	7000199263	5000213554	8000091827
17	3000112038	6000231845	7000197769	5000219821
18	3000118842	5000222194	5000223076	3000007826
19	7000189560	1000323617	3000163768	8000092853

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	1000316637	6000209960	3000145071	7000200716
21	3000115509	5000222426	7000203649	3000120403
22	6000235042	3000109545	5000223842	6000221119
23	3000118751	7000204912	5000201219	8000083632
24	6000234662	6000224024	3000139518	7000200903
25	6000236620	8000087716	3000112813	5000224555

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	6000234040	5000218841	5000204437	5000218476
27	6000229870	3000113404	6000236693	1000322041
28	8000091522	5000212243	7000205190	7000205501
29	3000123031	6000233975	8000092303	5000221268
30	6000225085	6000221635	3000166783	6000234669
31	7000200635	7000001529	3000164097	6000219483
32	7000198560	3000109384	8000090990	6000235831
33	5000212345	1000323652	3000165418	7000205270
34	3000065008	8000092173	5000222637	7000205408
35	1000314755	6000220141	7000201412	5000216451
36	3000031198	3000104675	7000206861	7000203981
37	1000322387	5000219838	3000120163	3000100250
38	7000192775	5000212916	7000197800	7000001488
39	7000198309	3000108065	7000203638	5000222479
40	7000203367	6000233115	3000172166	3000122325
41	6000231770	6000225646	5000218956	5000216344
42	6000210586	3000020845	7000193525	3000089574
43	6000218368	3000124806	7000206542	5000216909
44	8000092962	7000203432	6000236742	3000104141
45	5000194466	6000234751	7000206653	1000318652
46	6000233986	3000114871	6000225706	1000321924
47	6000220663	5000213032	5000221454	1000316295
48	3000140782	6000233297	8000087198	7000202610
49	8000088365	6000233139	5000222463	3000106564
50	3000139632	5000219046	3000112506	1000320780

INABS 2007-A
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	125583143	125507202	125123147	125081833
2	3156476	125437287	125538583	125038961
3	125176926	1030498	6073369	6040128
4	125188292	125564324	6097190	124953435
5	125256507	124823954	125468327	6073260
6	125198242	125087148	6073827	125561667
7	124928355	125065491	124867054	6055269
8	125311511	124811610	125386853	6074247
9	125115705	124826351	6073215	125379403
10	124903559	125324841	125191587	6074188
11	3934057	125132861	125574299	124875855
12	125177869	125351247	125085726	6073248
13	125197806	125013372	1642082	125458792
14	125243385	125166894	125412051	125021336
15	125500428	120314043	124924741	125463987
16	125563574	124712930	124940675	125518474
17	124869521	124942533	124881713	124800447
18	125123820	125328208	125250686	125660733
19	125210605	125316405	125336594	6071344
20	124493465	125108222	125190794	125288316
21	125019230	6075808	125033745	6073954
22	125155011	125351704	125129163	125205802
23	125419433	124870681	125149086	125304166
24	125274252	125159533	125375585	125362637
25	125295601	125226764	125285550	6058936

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	124858115	125463819	125138231	125078068
27	125201282	125125168	125128987	125436834
28	125087278	125458313	125083200	125143444
29	124879847	125271162	125654961	6073976
30	125559405	124877371	125349126	125330201
31	125405185	125659195	124955001	124841378
32	125385100	125085390	125119349	6073246
33	125156866	125008912	125293878	125021343
34	125017351	124066827	124903432	6058531

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	125000240	125505590	125368086	125604497
36	125355728	125571616	125527029	6074056
37	125416505	124805494	6097154	125172026
38	124623624	125405430	125186491	125413921
39	124813048	124903787	125187417	125474951
40	120310755	125206887	124999643	125131741
41	124909549	125221792	125203578	125555708
42	124717734	125095055	6075810	125018875
43	124467061	125079138	6097272	125126678
44	124603511	125133586	6073258	125071908
45	125191313	124650705	125460039	124965163
46	124941842	124919762	125556652	125520167
47	125466680	125549562	125029009	125054378
48	125159837	125542261	125091500	124696073
49	124232932	125350612	125519031	125256811
50	125078913	120276364	124821220	125005860

INDS 2006-3
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	124595811	124383444	124575399	124523503
2	124370745	124348954	124369042	124616506
3	124574139	124160507	124420145	124115575
4	124224053	124136075	124146485	124449425
5	124538788	124455371	124205314	124235026
6	124618040	124493069	124702490	124628600
7	124683931	124302998	124132928	124420410
8	124532568	124525265	124198083	124582405
9	124583314	124523291	124588915	124378820
10	124593253	124812680	124624594	124667080
11	124152463	124461514	124744573	124693769
12	124453908	124381061	124531295	124387373
13	124146644	124216994	124323527	124122814
14	124301508	124378812	124180974	123994585
15	124651584	124413486	124380951	124699124
16	124651178	124268442	124645976	124298165
17	124683946	124446117	124358345	124736363
18	124252665	124702516	124213944	124120849
19	124400693	124733642	124399671	124445956

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	124607075	124192090	124277920	124241639
21	124484392	124188552	6049558	124388458
22	124783681	6056204	124728712	124263434
23	124094986	124626855	124472158	124251256
24	124357836	124164274	124256847	124378813
25	124622324	124578254	124212791	124280850

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	124518743	6039324	124404140	124322577
27	124541494	124383452	124305492	124470955
28	124330565	124370023	124572916	124288126
29	124663881	124358880	6039331	124723240
30	124443700	124039402	124281315	124182804
31	124677495	124346851	124258525	124785531
32	124497799	124376683	124616309	124203044
33	124169791	124520574	124232024	124730413
34	124520536	124397982	124109532	124489299
35	124459215	124256533	124580666	124335084
36	124694996	6056318	124635030	124330649
37	124728981	124383460	124316933	124307688
38	6056282	123887510	124702502	124352025
39	124299498	124435692	124725414	124540051
40	124251426	124660955	124437105	124305115
41	124592522	124344439	124466413	124417734
42	124475213	6056369	124173671	6039321
43	124530621	124175744	6049589	124270371
44	124404805	124133818	124325282	124597561
45	124270822	124688580	124215414	6056346
46	124703760	124362993	124524039	124285929
47	124728726	124554250	124249240	124254995
48	123839781	124440199	124488225	124649822
49	124537478	124402455	124452272	124193212
50	124429467	124716578	124600633	124117330

INDS 2007-1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	125182699	124792811	125191125	124713021
2	124782099	124723892	125096117	124919703
3	125082254	124854725	124840934	124816189
4	125014768	124712995	6070036	125177318
5	6070047	124870839	125069975	124764198
6	124971027	125353334	124836451	124962966
7	6080603	125085916	125184913	125008587
8	125217064	124867192	124888960	125060209
9	6075801	6069777	125280842	125072161
10	124728762	125045868	124153744	124827767
11	124475432	125141081	124937746	124955837
12	6069958	125055109	125062603	124844668
13	124745587	124751147	124592284	124713056
14	124780279	124694155	124828950	125092028
15	6069980	124847629	6073851	125288038
16	124938734	125171486	125158176	124887616
17	125124903	124753659	125017683	125035359
18	125170732	6069792	124717509	6061452
19	124467711	124927884	124766177	124646123
20	125207841	124882643	125260004	125082867
21	125093387	124635840	125046400	6061160
22	125034175	124377677	125160859	124534170
23	124959055	125019344	6061404	124959260
24	125063881	124401891	124728269	125239402
25	124823207	6061182	6061245	124552738

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	125137236	124159911	125087803	124702481
27	125008263	6087497	124137589	124776735
28	124770494	6069965	124987163	124840033
29	125076388	6061446	125171543	124885457
30	124485260	124909729	125039070	125137975
31	124955772	124795796	124968803	6061197
32	124845553	125086464	125151254	6061415
33	125188845	124971814	124970237	124642033
34	124713038	124863059	6069883	124844170

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	6069908	124786091	124573029	124712991
36	124796616	124660466	124956600	124480366
37	124903731	125065944	124713113	124831008
38	124852972	125026668	125237209	124895309
39	6087647	125293140	125048876	124564824
40	124947901	125078907	124874313	125172222
41	124832821	124847055	6061453	125066059
42	6069797	125197603	6061229	124713030
43	124755094	125155297	6063862	124778294
44	125007837	124713015	124984109	124994240
45	124681926	124995318	125003052	125096245
46	124760967	125277580	123982562	125213380
47	125096312	124838274	6061273	125132219
48	124738149	125102739	124949512	124986359
49	125087773	6069963	124920002	6074324
50	124878879	124803486	124916702	124837983

INDS 2007-2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	125340456	125178295	6096119	125017704
2	125425365	125311657	125259844	125167697
3	6096164	125367634	125290573	125644755
4	125478274	125388693	125407008	124851730
5	125318371	6073930	125418393	125337599
6	6090866	6090777	125457267	6073896
7	125526328	6096062	125082572	125211067
8	125262301	125420566	125297473	6074271
9	125720444	125496014	125355402	6074120
10	125109049	125332859	6096220	125342798
11	125525962	125133307	6089879	125392073
12	6090957	6090852	125352822	125150086
13	125170480	125378735	125136237	125330125
14	125268244	125304841	6087528	125230266
15	125435953	125330711	125325074	125624172
16	125263477	124936199	125456307	125243545
17	125095224	6098221	125309419	125245047
18	125144594	125099775	125290990	125234039
19	125516437	125457520	125256146	125240756

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	125140602	125568485	125349203	125257766
21	125469619	125265826	125347192	6074037
22	124899867	6094998	125532920	6061451
23	125103385	125393363	125477382	125213864
24	125302974	125523892	125449003	125278713
25	125621715	125609878	6074214	125530172

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	125468655	125275491	125231639	6074166
27	6061468	125462808	6074090	125705474
28	6061548	125307238	125504491	125558860
29	125525978	125329162	6074287	125407026
30	125357839	125355899	125215080	124903207
31	124806275	125269225	125417585	6074081
32	125412127	125318296	125408260	125621225
33	125150698	125444332	124958593	125178469
34	124996388	125499762	125331226	125447086
35	125097737	125234971	125293779	124815725
36	125526339	6061579	125596773	125005919
37	125526322	125593160	6074171	125596871
38	125390041	125007930	125380625	125169435
39	125391947	125640847	6090680	125521616
40	125410677	125480923	6096198	6096038
41	125316899	125494458	6099749	6091478
42	125289362	6096020	125223192	125239508
43	125277389	125247166	125074332	125237875
44	125597456	125402308	6074075	6096194
45	125351135	125481336	125453165	125115293
46	6096103	125137907	125224038	6089869
47	125526326	125499819	125691877	6049449
48	6069811	125430439	6074085	125570073
49	125349702	125288095	125201546	125501041
50	125171988	124583082	125299934	125547203

MABS 2006-HE2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	333635785	333618647	333618902	333619761
2	333619254	333634247	333635972	333634810
3	333634143	333618887	333634303	333619873
4	333634712	333619652	333624256	333634845
5	333653801	333634407	333635597	333634066
6	333653790	333633953	333619869	333619909
7	333653846	333633454	333618546	333634194
8	333618722	333635074	333624239	333634471
9	333634107	333635505	333635705	333619378
10	333634389	333635456	333619396	333619890
11	333633412	333634386	333634915	777016379
12	333618690	333619149	333634637	333633688
13	333653857	333619340	333618719	333619199
14	333634218	333618634	333624245	333619235
15	333634429	333619125	333618682	333619664
16	333633452	333618662	333635193	333599827
17	333635458	333624126	333635715	333635357
18	333618958	333635444	333635268	333635336
19	333619054	333635879	333653870	333584345
20	333618974	333619693	333618992	333633472
21	333633891	333635577	333634460	333633324
22	333635834	333633966	333624138	333619651
23	333634469	333619698	333653742	333635874
24	333635566	333624150	333619747	333635344
25	333618909	333653822	333635603	333635008

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	333635671	333624087	333624301	333635674
27	333634487	333619475	333635457	333635395
28	333599883	333653798	333619808	333635185
29	333653799	333619497	333618555	333635174
30	333619187	333635658	333653824	333635222
31	333635751	333634864	333653684	333619057
32	333619308	333619298	333635108	333619606
33	333634522	333635324	333635976	333618635
34	333634263	333618912	333653852	333635338

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	333633834	333619441	333619632	333624307
36	333619202	333618833	333635119	333635421
37	333634633	333634667	333624265	333619663
38	333653743	333619738	333635254	333624187
39	333634286	333619450	333618772	333635294
40	333633481	333618989	333634545	333653762
41	333619860	333635974	333619090	333635455
42	333634294	333624089	333618712	333635903
43	333619757	333618717	333633474	333599825
44	333633855	333599813	333599856	333633469
45	333618868	333618857	333631887	333634242
46	333619502	333634963	333653707	333624173
47	333618872	333633880	333653729	333635059
48	333634923	333619266	333634863	333635637
49	333634179	333599798	333633610	333619052
50	333634117	333635828	333599853	333635481

MABS 2006-WMC1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	11352838	11379903	11356785	11360280
2	11384162	11362029	11372507	11383697
3	11375343	11397370	11347409	11385245
4	11348209	11380684	11338769	11392055
5	11388375	11379655	11381064	11389120
6	11376125	11365886	11388330	11141857
7	11393500	11364106	11396167	11381017
8	11335933	11377820	11383927	11375876
9	11379942	11351923	11389122	11383596
10	11351700	11370085	11371199	11386236
11	11356142	11386667	11371807	11365649
12	11374205	11324641	11385649	11398844
13	11371824	11378391	11381698	11382965
14	11384158	11384389	11368186	11389900
15	11378367	11356126	11387697	11378197
16	11388282	11379947	11398405	11385299
17	11343901	11358063	11390504	11356561
18	11348639	11373533	11395066	11374120
19	11388559	11358900	11384738	11364231

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	11287456	11367035	11388008	11374119
21	11381445	11384449	11393657	11382629
22	11386045	11394908	11395899	11374688
23	11380415	11386327	11381191	11387381
24	11358860	11347872	11365126	11391936
25	11359633	11337126	11376517	11381746

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	11401404	11376356	11377967	11317021
27	11375252	11393097	11338205	11377850
28	11367248	11368678	11372049	11368235
29	11372780	11359358	11382353	11403162
30	11361461	11371568	11383510	11401556
31	11388221	11364869	11362680	11363259
32	11400951	11383392	11388905	11377441
33	11275768	11365935	11345487	11378331
34	11384671	11367198	11384772	11385423
35	11380457	11379820	11370636	11385477
36	11391767	11380463	11376412	11354622
37	11383084	11346744	11389547	11390434
38	11367061	11389387	11382932	11369325
39	11349816	11375226	11383049	11388048
40	11389521	11373902	11387694	11391234
41	11375420	11388991	11366763	11365736
42	11403408	11368683	11360579	11382922
43	11382408	11375931	11383509	11368347
44	11394139	11371065	11380501	11369700
45	11401403	11389729	11396121	11381734
46	11359385	11351436	11349941	11352471
47	11377962	11380648	11397376	11365691
48	11377487	11396310	11396477	11399712
49	11386700	11375935	11365703	11385857
50	11360487	11355570	11371028	11402286

MABS 2006-WMC4
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	11597438	11551066	11633425	11578436
2	11605887	11553709	11597030	11567841
3	11586815	11612446	11584734	11600883
4	11632874	11579171	11622908	11616044
5	11612641	11553574	11587530	11560817
6	11506895	11569695	11619509	11618919
7	11620033	11601208	11593985	11624056
8	11600673	11588864	11607634	11551929
9	11591997	11594169	11570687	11551292
10	11604296	11574367	11604998	11537116
11	11605642	11602966	11597328	11602539
12	11621190	11581022	11550982	11592274
13	11610178	11621702	11627577	11594177
14	11622271	11553003	11556508	11586265
15	11613031	11612821	11581879	11563585
16	11624098	11579214	11540335	11587167
17	11634926	11616288	11592551	11551122
18	11621054	11610199	11616828	11553130
19	11620367	11581907	11592643	11601944
20	11569525	11555977	11595734	11608591
21	11545065	11622840	11609230	11576710
22	11588413	11581606	11629714	11590835
23	11564476	11593332	11622588	11608631
24	11608713	11569630	11595214	11617930
25	11596984	11614881	11585780	11621596

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	11597152	11613802	11582585	11552986
27	11580530	11593898	11585865	11596316
28	11588136	11593838	11637468	11614099
29	11597915	11569379	11623021	11625425
30	11606232	11616771	11620201	11547761
31	11593115	11555190	11537067	11593478
32	11582501	11575395	11594866	11628799
33	11596337	11594279	11625048	11566321
34	11541780	11614975	11588359	11591616

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	11627073	11555779	11559454	11582507
36	11586462	11606149	11570917	11595067
37	11571447	11587548	11621366	11560331
38	11565013	11608190	11590155	11594047
39	11552790	11567575	11631371	11597226
40	11551403	11573107	11566931	11617759
41	11616173	11622309	11597564	11594043
42	11594221	11557610	11574149	11600656
43	11637204	11619567	11592007	11574350
44	11561973	11613865	11600299	11628267
45	11621956	11605711	11548035	11624968
46	11597735	11594618	11597032	11569460
47	11583290	11554889	11583913	11601941
48	11596741	11569022	11606273	11568852
49	11606370	11575651	11569329	11630510
50	11606508	11571285	11578592	11577228

MARM 2007-2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	334941678	334942078	334941836	334941783
2	334941318	334941512	334941620	334942039
3	334941217	334941412	334941983	334942036
4	334941402	334941947	334941873	334942151
5	334941388	334942364	334941959	334941455
6	334941832	334941427	334942112	334942360
7	334942156	334941554	334941732	334941872
8	334941560	334941403	334941317	334941260
9	334941250	334942167	334941769	334942472
10	334941781	334941385	334942334	334942150
11	334941152	334941937	334941424	334177049
12	334942212	334941653	334941159	334941364
13	334941123	334941679	334942408	334942002
14	334941811	334941433	334941496	334942314
15	334942452	334942171	334941486	334941933
16	334941557	334941741	334941624	334942044
17	334941892	334941100	334941255	334942307
18	334941112	334942114	334941805	334941118
19	334942029	334942253	334941105	334941686

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	334941806	334941419	334941787	334942347
21	334941158	334941866	334941214	334941142
22	334941795	334941501	334942257	334942310
23	334941562	334941416	334941888	334941085
24	334941365	334941276	334941489	334942180
25	334941600	334942187	334941144	334941171

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	334942049	334941941	334941824	334941594
27	334941305	334942323	334942365	334941699
28	334941502	334942258	334942284	334941794
29	334941965	334942108	334941623	334941566
30	334941610	334941297	334942272	334942046
31	334941239	334941208	334941196	334942473
32	334941826	334942249	334941162	334941446
33	334941926	334942308	334941418	334941429
34	334941635	334941698	334942107	334941901
35	334941934	334941744	334941545	334941356
36	334941131	334941460	334941652	334941586
37	334942331	334941520	334177064	334941857
38	334941780	334942396	334942185	334941482
39	334941473	334941728	334177065	334941531
40	334941185	334941786	334941530	334941589
41	334941907	334941442	334942449	334941931
42	334941184	334941475	334942439	334942243
43	334942172	334941509	334942071	334941939
44	334941908	334942248	334941508	334941844
45	334941938	334942084	334941207	334941500
46	334941378	334942038	334941673	334941576
47	334941438	334941804	334942305	334942454
48	334942158	334941291	334941244	334941725
49	334941738	334942073	334941533	334942416
50	334941756	334942262	334941957	334942099

MARM 2007-HF2
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	777033550	777033987	777035364	777034486
2	777033643	777036571	777035498	777038333
3	777036506	777035065	777035530	777033097
4	777033012	777018975	777035615	777037235
5	777035556	777038898	777036292	777038397
6	777038954	777036880	777035833	777037251
7	777029262	777029970	777035800	777034586
8	777031605	777037021	777028061	777029567
9	777032672	777034450	777035832	777035296
10	777030460	777031802	777035448	777035683
11	777032944	777033657	777033623	777036307
12	777036947	777034853	777029313	777036345
13	777037476	777034042	777034151	334740617
14	777038421	334740625	777035385	777034374
15	777039212	777036013	777032837	777034573
16	777031171	777033465	777038820	777033299
17	777018227	777035640	777035673	777033401
18	777032974	777038110	777036850	777029353
19	777038629	777037081	777037228	777032935
20	777031389	777033832	777037827	777038440
21	777033276	777033332	777034913	777035948
22	777033180	777036043	777036872	777036956
23	777036812	777035779	777036918	777034345
24	777030881	777031997	777038097	777035821
25	777034538	777034110	777035649	777029962

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	777035274	777032178	777034614	777036297
27	777034433	777036282	777034809	777037518
28	777037477	777030996	777038431	777036940
29	777035811	777036637	777034290	777036227
30	777035290	777032447	777035213	777038602
31	777036766	777034398	777032619	777036322
32	777031901	777038003	777024243	777036601
33	777035188	334756522	777035536	777033095
34	777034647	777033827	777037349	777032387

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
35	777037309	777033963	777034585	777034896
36	777036958	777037512	777030290	777035788
37	777035921	777034504	777034421	777036277
38	777035551	777027702	777030816	777036441
39	777035310	777030685	777033802	777038477
40	777035852	777035577	777037649	777033255
41	777036207	777035984	777036012	777037975
42	777036624	777031227	777037261	777033406
43	777033033	334756570	777034619	777034471
44	777020847	777036328	777035117	777036920
45	777033572	777032034	777034251	777037488
46	777035555	777034666	777036415	777037345
47	777035659	777035667	777033696	777036778
48	777034503	777032928	777034018	334756496
49	777035255	777035929	777036072	777035229
50	777038160	777033616	777034651	777039226

MASL 2006-1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	333528981	333526332	777012932	333522880
2	333529184	333528846	333523122	333483417
3	333523220	333537805	333529163	333526725
4	333527220	333528779	333528727	333483062
5	333527457	333528412	333537183	333526743
6	333528749	333537815	333525974	333523351
7	333529199	333523739	333526558	333528136
8	333527042	333537354	333527702	333522995
9	333526819	777009404	777009373	333528397
10	333529028	333527481	333527581	333523126
11	333527572	333522809	333522788	333537184
12	333529029	333528111	333537629	333522869
13	333527244	333529213	333537807	333537567
14	333527023	333537365	333528378	333528408
15	333538015	777009406	333526945	333483347
16	333527924	333523688	333529023	333523296
17	333527969	333526547	333483154	333522961
18	333528344	333537339	333537189	777009216
19	333528116	333527869	333526069	333522938

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
20	333527615	333537827	333527373	333483244
21	333527695	333537117	333526620	333482943
22	333526645	333526820	333537703	777010565
23	333529038	333525969	333523138	777009872
24	333537276	333526939	333528471	333528160
25	333528859	777012033	333526590	333522693

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	333529097	333527768	777011773	333537463
27	333527851	333528597	333527532	333523083
28	333527927	333537914	333537935	333483386
29	333527523	333526709	333537195	333523618
30	333537013	333537243	333527422	333526436
31	333527079	333537912	333523286	333483415
32	333528873	333529083	333526574	333523301
33	333529156	777011955	333525938	333523009
34	333526288	333527724	333473615	333528532
35	333527206	333482538	333527870	777009270
36	333527980	333528706	333526872	333528146
37	333527031	333537834	333528452	333537831
38	333528389	333528416	333538050	333526896
39	333527772	333529226	777012180	777009350
40	333483410	333526007	777009370	333523481
41	333528521	333526010	333528566	333527900
42	333526493	333528495	333537453	333482717
43	333526789	333537287	333526632	777009916
44	333526829	333537129	333526678	777011898
45	333527450	333529045	333526849	333523586
46	333528355	333526666	777011609	333537894
47	333526681	777011231	333522973	333523221
48	333537197	333527964	333523740	333527188
49	333526573	333528361	333482908	333528696
50	333527341	333527871	333526930	333523484

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WMLT 2006-ALT1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	80020846	80022012	80022831	80022113
2	80022809	80021679	80021504	80020962
3	80020888	80022073	80022763	80021094
4	80020931	80016299	80021127	80021108
5	80022521	80021725	80019187	80022104
6	80022197	80022471	80021310	80021875
7	80022499	80021418	80020880	80018185
8	80021156	80021205	80022569	80022030
9	80020872	80021423	80021081	80020892
10	80021706	80021522	80022000	80021271
11	80020944	80022835	80022193	80020851
12	80020836	80018202	80021055	80021691
13	80022788	80022791	80021918	80022845
14	80021416	80021341	80021101	80021726
15	80022457	80022692	80021208	80020999
16	80016063	80022749	80021069	80021486
17	80022571	80021436	80021417	80020973
18	80022656	80022846	80021808	80022171
19	80022579	80022694	80022879	80022530
20	80021993	80022799	80021674	80022506
21	80020821	80022855	80018452	80021311
22	80022684	80021580	80021383	80022729
23	80022528	80021554	80021019	80021461
24	80021345	80021203	80021419	80021170
25	80020792	80022563	80022618	80021882

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	80022587	80022593	80021330	80021701
27	80021191	80021306	80020788	80021233
28	80021667	80021975	80021878	80021289
29	80021860	80020865	80021016	80022514
30	80022844	80021951	80018086	80021609
31	80022676	80020807	80021385	80022163

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
32	80022789	80022169	80020830	80020848
33	80020771	80021879	80021587	80021537
34	80022689	80021892	80022164	80021089
35	80021542	80022660	80021982	80022121
36	80022566	80018096	80021076	80020945
37	80021803	80020808	80021440	80022712
38	80021840	80020964	80022125	80022109
39	80018524	80021731	80022830	80021767
40	80021241	80021164	80021534	80020979
41	80021136	80021192	80022479	80021457
42	80021052	80022188	80021702	80021623
43	80020914	80021518	80022186	80020896
44	80022508	80021480	80022737	80022634
45	80021812	80022714	80021884	80022537
46	80020902	80021979	80022105	80021473
47	80022659	80021576	80022598	80020869
48	80021802	80021364	80021117	80021347
49	80021014	80019113	80021850	80021426
50	80022005	80022036	80022152	80021713

WMLT 2006-AMN1
Initial Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
1	206-470231	206-109695	206-117761	206-125712
2	206-060556	206-221789	206-055641	206-150822
3	206-092083	206-021739	206-087730	206-475691
4	206-093365	206-097328	206-095899	206-096330
5	206-088086	206-218974	206-218150	206-190280
6	206-451857	206-123531	206-427085	206-090218
7	206-088493	206-165749	206-225601	206-062630
8	206-175931	206-145748	206-192215	206-247591
9	206-002335	206-107684	206-146281	206-173903
10	206-142536	206-089929	206-079575	206-209240
11	206-019556	206-084374	206-140690	206-434430
12	206-031254	206-299851	206-248555	225-303213
13	206-068875	206-357214	206-189613	206-073119
14	206-114907	206-443030	206-415109	206-165731
15	206-172087	206-265166	206-213883	206-410352
16	206-425198	206-143494	206-383100	206-112998

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
17	225-342421	206-373694	206-164572	225-365235
18	206-092245	206-088868	206-109113	206-222611
19	206-354690	206-204205	206-038241	225-327864
20	206-158521	206-118821	206-180071	206-120443
21	206-096739	206-039166	206-202482	206-439598
22	206-112041	206-392427	206-358351	206-127847
23	206-035381	206-139209	206-081260	206-141513
24	206-112408	206-288409	206-060831	206-174748
25	206-415184	206-234660	206-018002	206-115563

Supplemental Loan Sample

	Fico Q1	Fico Q2	Fico Q3	Fico Q4
26	206-156375	206-426542	206-217781	206-190468
27	206-025483	206-241585	206-102691	206-251564
28	206-342349	206-146698	206-098456	206-194986
29	206-127499	206-091974	206-125534	206-119551
30	206-142404	206-230052	206-222581	206-163622
31	206-190671	206-264038	206-106050	206-430469
32	206-169175	225-362783	206-116977	206-414188
33	206-073437	206-067861	206-118007	225-363453
34	206-394781	206-200226	206-128215	206-044020
35	206-465084	206-413092	206-057288	206-129785
36	206-054416	206-446012	206-353341	206-214383
37	206-468512	206-371748	206-072767	206-017006
38	206-200099	206-217323	206-123086	206-110740
39	206-361131	206-084927	206-087357	206-090692
40	206-353286	206-062541	206-132930	206-150032
41	206-102232	206-206585	206-253346	206-462557
42	206-097786	225-335301	225-333163	206-096054
43	206-166788	206-031751	206-166028	206-100213
44	206-018053	206-167032	206-153074	206-067283
45	206-074450	206-345241	225-276437	225-370735
46	206-104278	206-436548	206-243456	206-072708
47	225-354624	206-059469	206-110375	206-092865
48	206-435011	206-425970	206-179499	206-061960
49	206-207913	206-115687	206-116781	206-119861
50	206-231059	206-029233	206-479018	206-066121

EXHIBIT 1

Exhibit 1: Resume of Charles D. Cowan

Charles D. Cowan is Managing Partner of ANALYTIC FOCUS LLC. Dr. Cowan has 40 years of experience in statistical research and design. He consults for numerous public and private sector entities on the design, implementation, and evaluation of research and the synthesis of statistical and sampling techniques for measurement.

Dr. Cowan has designed some of the largest and most complex research programs conducted by the Federal Government, including the Post Enumeration Program conducted by the Bureau of the Census to evaluate the 1980 Decennial Census, the Economic Cash Recovery valuations conducted by the Resolution Trust Corporation in 1990-95, and many evaluation studies conducted for the Justice Department, the Department of Defense, the Department of Housing and Urban Development, and the Treasury Department. He has provided expert advice to corporations and government agencies on the incorporation of complex research designs in demographic and economic measurement problems, including:

- Development of procedures used by the Resolution Trust Corporation and the FDIC for determination of the value of all assets held by the RTC\FDIC taken from failed banks and S&Ls. Results from this research were used in quarterly reports to Congress on the loss to the American taxpayer that resulted from these failures. These estimates of anticipated recoveries on assets were also used by the RTC and FDIC for financial reporting, leading these agencies to their first clean opinions from the GAO in their annual review of agency financial statements.

- Establishment of audit and sampling methods to determine the completeness and reliability of reporting and record systems. These procedures were used to both expand and streamline bank examinations for safety and soundness and also compliance measurement for the FDIC. These sampling techniques are applied in the audit of Federal agencies concerned with regulatory review of operations and systems, and related systems for banks, regulatory agencies, and law firms;

- Application of econometric and biometric procedures for measurement of credit risk in large portfolios of loans. These models are frequently used for a variety of purposes within financial institutions, such as the pricing of loans, the management of customers long term, decision making on workouts for delinquent loans, and for establishment of economic and regulatory reserves.

- Evaluation of research conducted for the Department of Defense, for the National Institutes of Health, and for the Department of Agriculture, each in response to Congressional inquiries on the validity of published results.

- Model fitting and development of projection methods to measure the likelihood of loss or errors in recording in loans held by banks or put up for auction; measurement of the likelihood of fraud and/or noncompliance in systems, including bank holding companies,

trading activities for brokers, and systems for compliance with health department and judicial requirements;

- Incorporation of population demographic models with financial assessment models to predict risk for insurance companies and corporations in terms of number and value of potential claims in mass tort litigation.

- Development of procedures used by the Bureau of the Census for apportionment of population for revenue sharing purposes and the estimation of the undercount in the Decennial Census of Population and Housing. These procedures include application of capture-recapture methods to measure the size of the undercount in the decennial census, use of network sampling as an alternative measure for population size, and measurement of the reliability of data collected in the Census.

- Development of statistical methods to quantify the size of populations, including nomadic populations for the Census of Somalia, the undercount and overcount in the Census of Egypt, the number of missing children in Chicago, IL, and the number of homeless persons and families needing services in several large cities with transient populations.

Dr. Cowan teaches graduate and undergraduate courses in survey methods, statistics, and computer methods for analysis. He is the co-author of two books, one on evaluation of survey and census methods and one on econometric measures related to the welfare of the U.S. economy. He has written numerous articles on statistical methods, sampling, rare and elusive population research, and optimization techniques.

Prior to cofounding ANALYTIC FOCUS LLC, Dr. Cowan was a Director with ARPC and with Price Waterhouse, where he specialized in financial research, survey research, and audit sampling. From 1991 to 1996, Dr. Cowan was the Chief Statistician for the Resolution Trust Corporation and the Federal Deposit Insurance Corporation, where he designed research necessary to measure the loss from the Savings & Loan Crisis of the late 1980's and capitalization requirements for the RTC funds from the U.S. Treasury. Dr. Cowan also served as the Chief Statistician for the U.S. Department of Education, where he designed large-scale surveys of educational institutions to measure resource needs and availability, and for Opinion Research Corporation, where he designed predictive models of demand for automobile manufacturers, banks, and large horizontally diverse firms like GE and AT&T. Dr. Cowan worked for the U.S. Bureau of the Census, where he was the Chief of the Survey Design Branch and developed many of the techniques in use today for the evaluation of coverage in surveys and censuses.

Education
Ph.D., Mathematical Statistics, The George Washington University, 1984
M.A., Economics, The University of Michigan, 1973
B.A., English and B.A., Economics, The University of Michigan, 1972

Professional Experience
Co-Founder, ANALYTIC FOCUS LLC, January 2002 to present.
Director, ARPC, November, 1999 to December, 2001.
Director, PricewaterhouseCoopers LLP, January 1997 to November, 1999.
Chief Statistician, Federal Deposit Insurance Corporation / RTC, 1991 to 1996.
Chief Statistician, Opinion Research Corporation, 1989 to 1991.
Chief Statistician, National Center for Education Statistics, US Dept. of Education, 1986 to 1989.
Bureau of the Census: Assistant Division Chief, International Statistical Programs Center, 1984 to 1986; Staff Liaison for Statistical Litigation Support, 1983 to 1984; Chief, Survey Design Branch, Statistical Methods Division, 1978 to 1983; Acting Chief, Survey Analysis and Evaluation Branch, Demographic Surveys Division, 1976 to 1978; Office of the Chief, Statistical Research Division, 1975 to 1976
Survey Research Center, Oregon State University: Manager, 1974 to 1975
Institute for Social Research, U. of New York: Assistant Study Director, 1972 to 1974.

Professional Associations
Adjunct Full Professor, Statistics, University of Alabama – Birmingham, 2002-present.
Associate Professor, Statistics, George Washington University, 1993 - 1998.
Visiting Research Professor, Survey Research Laboratory, U. of Illinois, 1983 - 1989.
Consultant, Dept. of Community Psychiatry, Johns Hopkins U., July 1985 - Dec 1987.

Professional Societies – Memberships
American Statistical Association (ASA)
American Association for Public Opinion Research (AAPOR)
International Association of Assessment Officers

Professional Societies - Positions
President, Research Industry Coalition, 1999-2000
Council Member, Research Industry Coalition, Representative from ASA, 1995-2000
President, Washington/Baltimore Chapter of AAPOR, 1998
Program Chair, American Association for Public Opinion Research, 1991-2
Program Chair, Section on Survey Research Methods, ASA, 1989-90
Secretary-Treasurer, AAPOR, 1985-1986
Associate Secretary-Treasurer, AAPOR, 1984-1985
Editorial Board, Public Opinion Quarterly, 1980-1984
Editorial Board, Marketing Research, 1989-2000
Chair, Conference Committee, AAPOR, 1982-1989
Chair, Committee on Privacy and Confidentiality, ASA, 1980-1981

Publications

Strumpel, Burkhard; Cowan, Charles; Juster, F. Thomas; and Schmiedeskamp, Jay; editors, Surveys of Consumers 1972-73, Contributions to Behavioral Economics, Ann Arbor: The Institute for Social Research, 1975.

Duncan, Greg, and Cowan, Charles D., "Labor Market Discrimination and Nonpecuniary Work Rewards" in Surveys of Consumers 1972-73, Contributions to Behavioral Economics, Ann Arbor: The Institute for Social Research, 1975.

Curtin, Richard T. and Cowan, Charles D. "Public Attitudes Toward Fiscal Progress" in Surveys of Consumers 1972-73, Contributions to Behavioral Economics, Ann Arbor: The Institute for Social Research, 1975.

Cowan, Charles D., and Spoeri, Randall K., "Statistical Distance Measures and Test Site Selection: Some Considerations", Proceedings of the Computer Science and Statistics: Eleventh Annual Symposium on the Interface, 1978.

Bushery, John R., Cowan, Charles D., and Murphy, Linda R., "Experiments in Telephone-Personal Visit Surveys", Proceedings of the American Statistical Association, Section on Survey Research Methods, 1978.

Spoeri, Randall K., and Cowan, Charles D., "On the Use of Distance Measures in Test Site Selection: A Practical Application Using Census Data", Proceedings of the American Statistical Association, Section on Business and Economic Statistics, 1978.

Hogan, Howard, and Cowan, Charles D., "Imputations, Response Errors, and Matching in Dual System Estimation", Proceedings of the American Statistical Association, Section on Survey Research Methods, 1980.

Schwartz, Sidney H., Cowan, Charles D., and Sausman, Kenneth R., "Optimization in the Design of a Large-Scale State Sample", Proceedings of the American Statistical Association, Section on Survey Research Methods, 1980.

Cowan, Charles D., "Modifications to Capture-Recapture Estimation in the Presence of Errors in the Data" presented at the meetings of the American Statistical Association, Biometrics Section, 1982 (no proceedings).

Cowan, Charles D. "Interviews and Interviewing", The Social Science Encyclopedia, Routledge and Kegan Paul, Publishers, The Netherlands, 1984.

Wei, L. J. and Cowan, Charles D. "Selection Bias", Encyclopedia of Statistical Science, John Wiley and Sons, New York, N.Y., 1984.

Cowan, Charles D. and Malec, Donald J. "Capture-Recapture Models When Both Sources Have Clustered Observations", Journal of the American Statistical Association, June 1986, Vol. 81,

394, pp. 347-353, and Proceedings of the American Statistical Association, Section on Survey Research Methods, 1984.

Cowan, Charles D. The Effects of Misclassification on Estimates from Capture-Recapture Studies. Unpublished doctoral dissertation, The George Washington University, September 1984.

Cowan, Charles D. "Misclassification of Categorical Data", Proceedings of the American Statistical Association, Section on Survey Research Methods, 1985.

Cowan, Charles D., Biemer, Paul P., Magnani, Robert J., and Turner, Anthony G., Evaluating Censuses of Population and Housing, Statistical Training Document, ISP-TR-5, U.S. Department of Commerce, Bureau of the Census, 1985.

Cowan, Charles D., Turner, Anthony G., and Stanecki, Karen "Design of the Somali Post Enumeration Survey (1986-1987)", Proceedings of the American Statistical Association, Section on Survey Research Methods, 1986.

Cowan, Charles D., Breakey, William R., and Fischer, Pamela J. "The Methodology of Counting the Homeless", Proceedings of the American Statistical Association, Section on Survey Research Methods, 1986.

Cowan, Charles D. and Malec, Donald J. "Sample Allocation for a Multistage, Multilevel, Multivariate Survey", Proceedings of the Fourth Annual Research Conference (ARC IV), U.S. Bureau of the Census, 1988.

Frey, Carolin M., McMillen, Marilyn M., Cowan, Charles D., Horm, John W., and Kessler, Larry G.. "Representativeness of the Surveillance, Epidemiology, and End Results Program Data: Recent Trends in Mortality Rates", Journal of the National Cancer Institute, Vol. 84, No. 11, June 3, 1992.

Cowan, Charles D., Breakey, William R., and Fischer, Pamela J. "The Methodology of Counting the Homeless, A Review" in Homelessness, Health, and Human Needs. Institute of Medicine, National Academy Press, National Academy of Sciences, Washington, D.C., 1988.

Cowan, Charles D., "Standards for Statistical Surveys in the Federal Government: Practices in the Center for Education Statistics", Proceedings of the American Statistical Association, Section on Survey Methods Research, 1988.

Sudman, Seymour, Sirken, Monroe G., and Cowan, Charles D., "Sampling Rare and Elusive Populations", Science, Vol. 240, pp. 991-996, May 20, 1988.

Cowan, Charles D., "Mall Intercepts and Clinical Trials: The Philosophy of Inference from Different Types of Research Designs" in Marketing Research: A Magazine of Management & Applications, Vol. 1, No. 1, March 1989.

Cowan, Charles D., "Mall Intercepts: Principles of Design for Research" in Proceedings of the Seventh Annual Advertising Research Foundation Research Quality Workshop, September, 1989.

Cowan, Charles D., "Estimating Census and Survey Undercounts Through Multiple Service Contacts" in Housing Policy Debate: Counting the Homeless: The Methodologies, Policies, and Social Significance Behind the Numbers, Volume 2, Issue 3, pp. 869-882, 1991.

Cowan, Charles D., "Ratio vs. Regression Estimators in a Large Scale Survey of S&L's" in Proceedings of the Section on Survey Research Methods, American Statistical Association, 1992.

Cowan, Charles D., "A Longitudinal Survey and Reality Check for the Value of Financial Assets" in Proceedings of Statistics Canada Symposium 92: Design and Analysis of Longitudinal Surveys, November 1992.

Cowan, Charles D., and Wittes, Janet, "Intercept Studies, Clinical Trials, and Cluster Experiments: To Whom Can We Extrapolate?" in Controlled Clinical Trials, Vol.15, pp.24-29, 1994.

Cowan, Charles D., and Klena, Matthew K. “Use of the EM Algorithm for Allocation of Proceeds from Auctions and Bulk Sales” in Proceedings of the Section on Business and Economic Statistics, American Statistical Association, 1995.

Cowan, Charles D., “Coverage, Sample Design, and Weighting in Three Federal Surveys” in Journal of Drug Issues, October, 2001.

Cowan, Charles D., “Use of Mass Appraisals in Toxic Tort Litigation Involving Loss of Value” in Proceedings of the International Association of Assessment Officers, October, 2002.

Cowan, Adrian M. and Cowan, Charles D., “Default Correlation: An Empirical Investigation of a Subprime Lender”, The Journal of Banking and Finance, March 2004.

Cowan, Charles D. and Cowan, Adrian M., “A Survey Based Assessment of Financial Institution Use of Credit Scoring for Small Business Lending”, SBA Report 283, Nov. 2006

Keith, Scott W. , Wang, Chenxi, Fontaine, Kevin R. , Cowan, Charles D. and Allison, David B. , “Body Mass Index and Headache Among Women: Results From 11 Epidemiologic Datasets”, Obesity, Volume 16, Issue 2 (February 2008) 16: 377-383; doi:10.1038/oby.2007.32

Cowan, Adrian M. and Cowan, Charles D., “The Dynamics of Credit Quality and Implications for the Pricing of Small Business Loans”, The International Journal of Banking and Finance, 2007/08 (March) Vol. 5. Number 2:2008: 31-60

Brock, David W., Thomas, Olivia, Cowan, Charles D., Hunter, Gary R., Gaesser, Glenn A., and Allison, David B., Association between Physical Inactivity and Prevalence of Obesity in the United States, Journal of Physical Activity and Health, January, 2009

EXHIBIT 2

Past Testimony, Charles D. Cowan

Financial:
MBIA v. Countrywide Home Loan et al. Hearing on motion *in limine* in NY State Court, Worked for plaintiff, September 2010. Deposed July 2012.

In re: Countrywide Financial Corp. Mortgage Marketing and Sales Practices Litigation, Class Action. Worked for plaintiffs. Deposed in May 2011.

Charles P. Haggarty and Gina M. Haggarty, et al v. Wells Fargo Bank, N.A.. Worked for plaintiffs. Deposed in August 2012.

Dexia v. J. P. Morgan. Worked for plaintiffs. Deposed in February 2013.

Lucarelli Pizza and Deli et al v. Teco Energy, Peoples Gas System, and Posen Construction. Business Interruption case. Worked for the defendant. Deposition in January 2013; class certification hearing in January 2013.

AIG v. Bank of New York - Mellon. Worked for plaintiffs. Deposed in May 2013, testimony at hearing in September 2013.

Mass Mutual v. numerous Underwriters of RMBS - 15 combined actions. Worked for plaintiffs. Deposed in May 2013, testimony at hearings, October 2013.

United States of America v. Bank of America, Countrywide, et al. Worked for the plaintiff. Deposed in June 2013, testimony in September 2013.

CUNA Mutual v. RBS Securities. Worked for plaintiffs. Deposed in January 2014.

Western Southern Life Insurance Company v. DLJ Mortgage Capital et al. Worked for plaintiffs. Deposed in March 2014.

Construction Defects:
in re WIRSBO Fitting Litigation. Worked for the plaintiffs. Hearing, February 2012.

Bongalos v. D.R. Horton, Rancho Cordova, California. Worked for Defense. Deposition, January 2013.

Turnberry Towers East Unit-Owners Association v. Turnberry Towers L.P. et al., Worked for defense. Deposition, July 2013.

Horizon v. Shapell. Worked for defense. Deposition, September 2013.

Newport Lofts Homeowners Association v. Newport Lofts et al, Worked for defense. Deposition, September 2013.

Laurelwood v. Shapell. Worked for defense. Deposition, December 2013.

Fair Labor Standards Act (FLSA):
Richter v. Dolgencorp et al. Worked for defendant. Deposition, Jan 2012.

Disparate Impact \ Discrimination:
Webb Bridge LLC v. City of Alpharetta et al. Worked for defendant. Deposition, November 2013.

Toxic Tort:
Bawtinhimer v. D.R. Horton, Inc. Worked for the defense. Deposed, February 2013.

Other cases:
Avery vs. Southern Company. Worked for the plaintiff. Deposition in April 2011.

Ultra Enterprises v. Ultra Records. Trademark infringement. Worked for plaintiff.
Deposition, July 2012.

Special Education Students in New Orleans v. State Superintendant of Education. Worked for the plaintiffs. Deposition in July 2013.

Packgen v. Berry Plastics Corporation and Covalence Specialty Coatings, LLC. Worked for the defendants. Testified at hearing in February 2014.

EXHIBIT 3

Documents Relied Upon

1. NCUA-BCI-NY00000003
2. NCUA-BCI-NY00000004
3. NCUA-BCI-NY00000005
4. NCUA-BCI-NY00000006
5. NCUA-BCI-NY00000007
6. NCUA-BCI-NY000000001
7. NCUA-BCI-NY00000008
8. NCUA-BCI-NY000000002
9. NCUA-BCI-NY00000009
10. CSNCUANY000000973
11. CSNCUANY000000213
12. CSNCUANY000000186
13. CSNCUANY000000185
14. CSNCUANY000001150
15. CSNCUANY000001164
16. CSNCUANY000001174
17. CSNCUANY000000208
18. CSNCUANY000001153
19. CSNCUANY000000205
20. CSNCUANY000000189
21. CSNCUANY000000117
22. CSNCUANY000000229
23. CSNCUANY000000537

24. GS NCUA SW 000000002

25. GS NCUA SW 000000021

26. http://www.sec.gov/Archives/edgar/data/1119605/000127727706000530/fwploantape_lb20067.htm

27. MS_NCUA_NY_000000008

28. MS_NCUA_NY_000000008

29. MS_NCUA_NY_000000001

30. MS_NCUA_NY_000000002

31. MS_NCUA_NY_000000003

32. MS_NCUA_NY_000000004

33. MS_NCUA_NY_000000005

34. MS NCUA NY 000000006

35. MS_NCUA_NY_000000007

36. MS_NCUA_NY_000000009

37. MS_NCUA_NY_000000010

38. MS_NCUA_NY_000000011

39. MS_NCUA_NY_000000012

40. MS_NCUA_NY_000000016

41. MS_NCUA_NY_000000017

42. MS_NCUA_NY_000000042

43. MS_NCUA_NY_000000013

44. MS_NCUA_NY_000000014

45. MS_NCUA_NY_000000015

46. MS_NCUA_NY_000000022

47. MS_NCUA_NY_000000043

48. MS_NCUA_NY_000000020

49. MS_NCUA_NY_000000044

50. MS_NCUA_NY_000000023

51. MS_NCUA_NY_000000024

52. MS_NCUA_NY_000000025

53. HVMLT 2006-10 (Schedule) RBS-NCUALA-00000026_CONFIDENTIAL

54. HVMLT 2007-1 (Schedule) RBS-NCUALA-00000022_CONFIDENTIAL

55. HVMLT 2007-2 (Schedule) RBS-NCUALA-00000023_CONFIDENTIAL

56. RBS-NCUANY0000009

57. RBS-NCUANY0000011

58. RBS-NCUANY0000004

59. RBS-NCUANY0000005

60. RBS-NCUANY0000003

61. RBS-NCUANY0000467

62. MortgageIT 2006-1 (Schedule) RBS-NCUALA-00000017_CONFIDENTIAL

63. NAA 2006-AR4 (Schedule) RBS-NCUALA-00000018_CONFIDENTIAL

64. NHELI 2007-1 (Schedule) RBS-NCUALA-00000036_CONFIDENTIAL

65. RBS-NCUANY0000008

66. RBS-NCUANY0000007

67. UBS_SDNY0000000319

68. UBS_SDNY0000000322

69. UBS/SDNY0000000005

70. UBS/SDNY0000000006

71. UBS/SDNY0000000007

72. UBS_SDNY0000000320

73. UBS/SDNY0000000007

74. UBS_SDNY0000000320

75. UBS/SDNY0000000008

76. UBS_SDNY0000000318

77. UBS_SDNY0000000321

78. UBS_SDNY0000000314

79. UBS_SDNY0000000315

80. UBS_SDNY0000000317

81. UBS/SDNY0000000012

82. UBS_SDNY0000000316

83. UBS/SDNY0000000001

84. UBS/SDNY0000000013

85. UBS/SDNY0000000014

86. UBS/SDNY0000000015

87. UBS/SDNY0000000016

88. WCM-NCUA-SDNY000000083--WMLT_2006-ALT1_Prosupp_Tape—CONFIDENTIAL

89. WMC-NCUA-SDNY000000084--WMLT 2006-AMN1—CONFIDENTIAL

90. Complaint (D.E. 1), dated September 23, 2013, *National Credit Union Administration v. Barclays Capital, Inc.*, No. 13-6727 (S.D.N.Y.)

91. Complaint (D.E. 1), dated September 23, 2013, *National Credit Union Administration v. Credit Suisse Securities (USA) LLC*, *et al.*, No. 13-6736 (S.D.N.Y.)

92. Complaint (D.E. 1), dated September 23, 2013, *National Credit Union Administration v. Goldman, Sachs & Co.*, No. 13-6721 (S.D.N.Y.)

93. Complaint (D.E. 1), dated September 23, 2013, *National Credit Union Administration v. Morgan Stanley & Co., Inc.*, *et al.*, No. 13-6705 (S.D.N.Y.)

94. Complaint (D.E. 1), dated September 23, 2013, *National Credit Union Administration v. RBS Securities., Inc.*, *et al.*, No. 13-6726 (S.D.N.Y.)

95. Complaint (D.E. 1), dated September 23, 2013, *National Credit Union Administration v. UBS Securities., LLC*, No. 13-6731 (S.D.N.Y.)

96. Complaint (D.E. 1), dated September 23, 2013, *National Credit Union Administration v. Wachovia Capital Markets, LLC*, No. 13-6719 (S.D.N.Y.)

97. Prospectus Supplement Dated February 26, 2007 (To Prospectus Dated February 22, 2007), Mortgage Pass-Through Certificates, Series 2007-AA1, BCAP LLC Trust 2007-AA1

98. Prospectus Supplement Dated March 28, 2007 (To Prospectus Dated March 14, 2007), Mortgage Pass-Through Certificates, Series 2007-AA2, BCAP LLC Trust 2007-AA2

99. Prospectus Supplement Dated May 30, 2007 (To Prospectus Dated February 22, 2007), Mortgage Pass-Through Certificates, Series 2007-AA3, BCAP LLC Trust 2007-AA3

100. Prospectus Supplement Dated July 18, 2007 (To Prospectus Dated March 14, 2007), Mortgage Pass-Through Certificates, Series 2007-AB1, BCAPB LLC Trust 2007-AB1

101. Prospectus Supplement Dated August 30, 2006 (To Prospectus Dated July 11, 2006), Mortgage-Backed Certificates, Series 2006-C, Fremont Home Loan Trust 2006-C

102. Prospectus Supplement Dated September 26, 2006 (To Prospectus Dated August 15, 2006), Mortgage Pass-Through Certificates, Series 2006-HE2, Securitized Asset Backed Receivables LLC Trust 2006-HE2

103. Prospectus Supplement Dated December 18, 2006 (To Prospectus Dated December 18, 2006), Home Equity Asset-Backed Certificates, Series 2006-3, Wells Fargo Home Equity Asset-Backed Securities 2006-3 Trust

104. Prospectus Supplement Dated March 28, 2007 (To Prospectus Dated March 23, 2007), Home Equity Asset-Backed Certificates, Series 2007-1, Wells Fargo Home Equity Asset-Backed Securities 2007-1 Trust

105. Prospectus Supplement Dated July 28, 2006 (To Prospectus Dated June 28, 2006), Adjustable Rate Mortgage-Backed Pass-Through Certificates Series, 2006-3, Adjustable Rate Mortgage Trust 2006-3

106. Prospectus Supplement Dated February 28, 2007 (To Prospectus Dated February 28, 2007), Adjustable Rate Mortgage-Backed Pass-Through Certificates, Series 2007-1, Adjustable Rate Mortgage Trust 2007-1

107. Prospectus Supplement Dated May 30, 2007 (To Prospectus Dated April 20, 2007), Adjustable Rate Mortgage-Backed Pass-Through Certificates, Series 2007-2, Adjustable Rate Mortgage Trust 2007-2

108. Prospectus Supplement Dated July 28, 2006 (To Prospectus Dated June 28, 2006), Home Equity Pass-Through Certificates, Series 2006-6, Home Equity Asset Trust 2006-6

109. Prospectus Supplement Dated April 26, 2006 (To Prospectus Dated April 5, 2006), Asset-Backed Notes, Series 2006-6, Home Equity Mortgage Trust 2006-2

110. Prospectus Supplement Dated April 27, 2007 (To Prospectus Dated April 20, 2007), Home Equity Mortgage Pass-Through Certificates, Series 2007-2, Home Equity Mortgage Trust 2007-2

111. Prospectus Supplement Dated January 30, 2006 (To Prospectus Dated February 10, 2004), Asset-Backed Certificates, Series 2006-1, Long Beach Mortgage Loan Trust 2006-1

112. Prospectus Supplement Dated July 21, 2006 (To Prospectus Dated July 21, 2006), Asset-Backed Certificates, Series 2006-6, Long Beach Mortgage Loan Trust 2006-6

113. Prospectus Supplement Dated October 26, 2006 (To Prospectus Dated October 26, 2006), Mortgage Asset-Backed Pass-Through Certificates, Series 2006-QA9, RALI Series 2006-QA9 Trust

114. Prospectus Supplement Dated February 22, 2007 (To Prospectus Dated February 13, 2007), Asset-Backed Certificates, Series 2007-3, GSAA Home Equity Trust 2007-3

115. Prospectus Supplement Dated April 27, 2007 (To Prospectus Dated February 13, 2007), Asset-Backed Certificates, Series 2007-5, GSAA Home Equity Trust 2007-5

116. Prospectus Supplement Dated August 24, 2006 (To Prospectus Dated July 21, 2006), Asset-Backed Certificates, Series 2006-7, Long Beach Mortgage Loan Trust 2006-7

117. Prospectus Supplement Dated April 24, 2006 (To Prospectus Dated March 27, 2006), Mortgage Pass-Through Certificates, Series 2006-HE2, Morgan Stanley Capital I Inc. Trust 2006-HE2

118. Prospectus Supplement Dated June 20, 2006 (To Prospectus Dated March 14, 2006), Mortgage Pass-Through Certificates, Series 2006-HE4, Morgan Stanley ABS Capital I Inc. Trust 2006-HE4

119. Prospectus Supplement Dated September 21, 2006 (To Prospectus Dated September 21, 2006), Mortgage Pass-Through Certificates, Series 2006-HE6, Morgan Stanley ABS Capital I Inc. Trust 2006-HE6

120. Prospectus Supplement Dated November 21, 2006 (To Prospectus Dated September 21, 2006), Mortgage Pass-Through Certificates, Series 2006-HE8, Morgan Stanley ABS Capital I Inc. Trust 2006-HE8

121. Prospectus Supplement Dated May 19, 2006 (To Prospectus Dated March 14, 2006), Mortgage Pass-Through Certificates, Series 2006-NC4, Morgan Stanley ABS Capital I Inc. Trust 2006-NC4

122. Prospectus Supplement Dated May 25, 2006 (To Prospectus Dated March 14, 2006), Mortgage Pass-Through Certificates, Series 2006-WMC2, Morgan Stanley ABS Capital I Inc. Trust 2006-WMC2

123. Prospectus Supplement Dated March 28, 2007 (To Prospectus Dated February 22, 2007), Mortgage Pass-Through Certificates, Series 2007-HE4, Morgan Stanley ABS Capital I Inc. Trust 2007-HE4

124. Prospectus Supplement Dated April 24, 2007 (To Prospectus Dated February 22, 2007), Mortgage Pass-Through Certificates, Series 2007-HE5, Morgan Stanley ABS Capital I Inc. Trust 2007-HE5

125. Prospectus Supplement Dated January 24, 2006 (To Prospectus Dated May 10, 2005), Mortgage Pass-Through Certificates, Series 2006-1, Morgan Stanley Home Equity Loan Trust 2006-1

126. Prospectus Supplement Dated April 2, 2007 (To Prospectus Dated February 22, 2007), Mortgage Pass-Through Certificates, Series 2007-2, Morgan Stanley Home Equity Loan Trust 2007-2

127. Prospectus Supplement Dated June 27, 2006 (To Prospectus Dated March 14, 2006), Mortgage Pass-Through Certificates, Series 2006-1, Morgan Stanley IXIS Real Estate Capital Trust 2006-1

128. Prospectus Supplement Dated December 22, 2005 (To Prospectus Dated July 27, 2005), Mortgage Pass-Through Certificates, Series 2005-11AR, Morgan Stanley Mortgage Loan Trust 2005-11AR

129. Prospectus Supplement Dated February 24, 2006 (To Prospectus Dated July 27, 2005), Mortgage Pass-Through Certificates, Series 2006-3AR, Morgan Stanley Mortgage Loan Trust 2006-3AR

130. Prospectus Supplement Dated May 25, 2006 (To Prospectus Dated March 14, 2006), Mortgage Pass-Through Certificates, Series 2006-8AR, Morgan Stanley Mortgage Loan Trust 2006-8AR

131. Prospectus Supplement Dated July 26, 2006 (To Prospectus Dated March 14, 2006), Mortgage Pass-Through Certificates, Series 2006-9AR, Morgan Stanley Mortgage Loan Trust 2006-9AR

132. Prospectus Supplement Dated July 20, 2006 (To Prospectus Dated March 14, 2006), Mortgage Pass-Through Certificates, Series 2006-10SL, Morgan Stanley Mortgage Loan Trust 2006-10SL

133. Prospectus Supplement Dated September 26, 2006 (To Prospectus Dated March 14, 2006), Mortgage Pass-Through Certificates, Series 2006-13ARX, Morgan Stanley Mortgage Loan Trust 2006-13ARX

134. Prospectus Supplement Dated October 26, 2006 (To Prospectus Dated March 14, 2006), Mortgage Pass-Through Certificates, Series 2006-16AX, Morgan Stanley Mortgage Loan Trust 2006-16AX

135. Prospectus Supplement Dated January 24, 2007 (To Prospectus Dated December 1, 2006), Mortgage Pass-Through Certificates, Series 2007-2AX, Morgan Stanley Mortgage Loan Trust 2007-2AX

136. Prospectus Supplement Dated February 27, 2007 (To Prospectus Dated December 1, 2006), Mortgage Pass-Through Certificates, Series 2007-4SL, Morgan Stanley Mortgage Loan Trust 2007-4SL

137. Prospectus Supplement Dated February 26, 2007 (To Prospectus Dated December 1, 2006), Mortgage Pass-Through Certificates, Series 2007-5AX, Morgan Stanley Mortgage Loan Trust 2007-5AX

138. Prospectus Supplement Dated June 26, 2007 (To Prospectus Dated December 1, 2006), Mortgage Pass-Through Certificates, Series 2007-11AR, Morgan Stanley Mortgage Loan Trust 2007-11AR

139. Prospectus Supplement Dated April 25, 2007 (To Prospectus Dated February 22, 2007), Mortgage Pass-Through Certificates, Series 2007-HE2, Natixis Real Estate Capital Trust 2007-HE2

140. Prospectus Supplement Dated June 29, 2006 (To Prospectus Dated March 3, 2006), Mortgage Asset-Backed Pass-Through Certificates, Series 2006-QA5, RALI Series 2006-QA5 Trust

141. Prospectus Supplement Dated April 25, 2007 (To Prospectus Dated April 26, 2006), Mortgage Loan Asset Backed Certificates, Series 2007-2, Saxon Asset Securities Trust 2007-2

142. Prospectus Supplement Dated November 28, 2006 (To Prospectus Dated November 2, 2006), GMACM Home Equity Loan-Backed Term Notes, Series 2006-HE5, GMACM Home Equity Loan Trust 2006-HE5

143. Prospectus Supplement Dated November 10, 2006 (To Prospectus Dated August 10, 2006), Mortgage Loan Pass-Through Certificates, Series 2006-10, HarborView Mortgage Loan Trust

144. Prospectus Supplement Dated March 7, 2007 (To Prospectus Dated January 30, 2007), Mortgage Loan Pass-Through Certificates, Series 2007-1, HarborView Mortgage Loan Trust

145. Prospectus Supplement Dated March 29, 2007 (To Prospectus Dated March 26, 2007), Mortgage Loan Pass-Through Certificates, Series 2007-2, HarborView Mortgage Loan Trust

146. Prospectus Supplement Dated April 26, 2007 (To Prospectus Dated March 26, 2007), Mortgage Loan Pass-Through Certificates, Series 2007-3, HarborView Mortgage Loan Trust

147. Prospectus Supplement Dated April 27, 2006 (To Prospectus Dated April 25, 2006), Mortgage Pass-Through Certificates, Series 2006-AR6, IndyMac Indx Mortgage Loan Trust 2006-AR6

148. Prospectus Supplement Dated February 28, 2006 (To Prospectus Dated February 10, 2004), Asset-Backed Certificates, Series 2006-2, Long Beach Mortgage Loan Trust 2006-2

149. Prospectus Supplement Dated September 15, 2006 (To Prospectus Dated July 21, 2006), Asset-Backed Certificates, Series 2006-8, Long Beach Mortgage Loan Trust 2006-8

150. Prospectus Supplement Dated February 17, 2006 (To Prospectus Dated September 26, 2005), Mortgage Loan Pass-Through Certificates, Series 2006-1, MortgageIT Mortgage Loan Trust

151. Prospectus Supplement Dated November 29, 2006 (To Prospectus Dated November 17, 2006), Alternative Loan Trust, Series 2006-AR4, Mortgage Pass-Through Certificates, Series 2006-AR4

152. Prospectus Supplement Dated January 29, 2007 (To Prospectus Dated April 18, 2006), Asset-Backed Certificates, Series 2007-1, Home Equity Loan Trust, Series 2007-1

153. Prospectus Supplement Dated March 2, 2007 (To Prospectus Dated February 28, 2007), Asset-Backed Certificates, Series 2007-2, Option One Mortgage Loan Trust 2007-2

154. Prospectus Supplement Dated October 26, 2006 (To Prospectus Dated August 10, 2006), Asset-Backed Certificates, Series 2006-WF1, Soundview Home Loan Trust 2006-WF1

155. Prospectus Supplement Dated March 15, 2006 (To Prospectus Dated April 15, 2005), Asset-Backed Pass-Through Certificates, Series 2006-W3, Argent Securities Trust 2006-W3

156. Prospectus Supplement Dated March 27, 2006 (To Prospectus Dated March 31, 2006), Mortgage Pass-Through Certificates, Series 2006-OA3, Alternative Loan Trust 2006-OA3

157. Prospectus Supplement Dated May 30, 2006 (To Prospectus Dated March 27, 2006), Mortgage Pass-Through Certificates, Series 2006-OA8, CountryWide Home Loan Trust 2006-OA3

158. Prospectus Supplement Dated February 28, 2006 (To Prospectus Dated January 25, 2006), Mortgage Pass-Through Certificates, Series 2006-OA5, CHL Wide Mortgage Pass-Through Trust 2006-OA5

159. Prospectus Supplement Dated August 3, 2006 (To Prospectus Dated July 11, 2006), Mortgage-Backed Certificates, Series 2006-B, Fremont Home Loan Trust 2006-B

160. Prospectus Supplement Dated March 12, 2007 (To Prospectus Dated December 11, 2006), Home Equity Mortgage Loan Assest-Backed Trust, Series INABS 2007-A

161. Prospectus Supplement Dated December 6, 2006 (To Prospectus Dated November 17, 2006), Home Equity Mortgage Loan Assest-Backed Trust, Series INDS 2006-3

162. Prospectus Supplement Dated February 13, 2007 (To Prospectus Dated December 11, 2006), Home Equity Mortgage Loan Assest-Backed Trust, Series INDS 2007-1

163. Prospectus Supplement Dated March 21, 2007 (To Prospectus Dated December 11, 2006), Home Equity Mortgage Loan Assest-Backed Trust, Series INDS 2007-2

164. Prospectus Supplement Dated June 8, 2006 (To Prospectus Dated April 18, 2006), Mortgage Pass Through Certificates, Series 2006-HE2, MASTR Asset Backed Securities Trust 2006-HE2

165. Prospectus Supplement Dated March 24, 2006 (To Prospectus Dated June 2, 2005), Mortgage Pass Through Certificates, Series 2006-WMC1, MASTR Asset Backed Securities Trust 2006-WMC1

166. Prospectus Supplement Dated November 3, 2006 (To Prospectus Dated October 17, 2006), Mortgage Pass Through Certificates, Series 2006-WMC4, MASTR Asset Backed Securities Trust 2006-WMC4

167. Prospectus Supplement Dated February 23, 2006 (To Prospectus Dated June 2, 2005), Mortgage Pass-Through Certificates, Series 2006-1, MASTR Second Lien Trust 2006-1

168. Prospectus Supplement Dated November 29, 2006 (To Prospectus Dated November 17, 2006), Mortgage Pass-Through Certificates, Series 2006-AR4, Alternative Loan Trust, Series 2006-AR4

169. Prospectus Supplement Dated December 19, 2006 (To Prospectus Dated May 23, 2006), Asset-Backed Certificates, Series-ALT1, Wachovia Mortgage Loan Trust 2006-ALT1

170. Prospectus Supplement Dated June 26, 2006 (To Prospectus Dated May 23, 2006), Asset-Backed Certificates, Series 2006-AMN1, Wachovia Mortgage Loan Trust 2006-AMN1

EXHIBIT 4

RMS Manual of Examination Policies

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RATIONALE OF BANK EXAMINATIONS

The Federal Deposit Insurance Corporation conducts bank examinations to ensure public confidence in the banking system and to assess compliance with laws and regulations. Bank examinations help protect the Deposit Insurance Fund and facilitate the supervisory process.

Maintaining public confidence in the integrity of the banking system is essential because customer deposits are a primary funding source, without which banks would be unable to meet fundamental objectives, such as providing financial services. The financial stability of an institution or the existence of weak risk management practices are disclosed through examination of a bank's capital, assets, management, earnings, liquidity, and sensitivity to market risk.

Evaluating a bank's adherence to laws and regulations is best accomplished through periodic onsite examinations. Compliance with statutory and regulatory requirements is given high priority by bank supervisors and Congress.

Bank examinations play a vital role in protecting the integrity of the Deposit Insurance Fund. Examinations help identify problem situations and help prevent identified problems from deteriorating to the point where depositor payoffs or financial assistance by the FDIC become unavoidable.

Finally, examinations play a key role in the supervisory process by helping the FDIC to identify the nature, severity, and cause of a bank's problems; to recognize emerging risks in the financial services industry; and to develop effective corrective measures.

CONDUCT OF EXAMINATIONS

Comprehensive bank examinations enhance the FDIC's ability to maintain public confidence in financial institutions and the banking system. Given the fundamental reasons for conducting examinations, regulatory personnel must have access to all records and employees of a bank during an examination.

Sections 10(b) and (c) of the Federal Deposit Insurance Act empower examiners to make a thorough examination of a bank’s affairs. Examiners should contact their regional office for guidance if faced with serious impediments to an examination, including uncooperative executive officers, or restricted access to bank employees or records. The regional office will determine an appropriate solution to enable examiners to obtain the information needed to complete the examination. In such cases, examiners should document all significant examination obstacles and the regional office’s resolution of the situation.

Prohibition Against Political Communication

FDIC employees should avoid any form of political communication with insured depository institutions that could be perceived as suggesting the examination process is influenced by political considerations, or that the bank should take a particular position on legislative issues. Examinations must be kept free from political considerations, or the appearance of being influenced by political considerations, in order to maintain the integrity and effectiveness of the examination process. FDIC employees should promptly inform their regional office of any situation they feel compromised this policy.

RATING SYSTEM

Introduction

The Uniform Financial Institutions Rating System (UFIRS) was adopted by the Federal Financial Institutions Examination Council (FFIEC) on November 13, 1979, and updated in December 1996. Over the years, the UFIRS proved to be an effective supervisory tool for evaluating financial institutions on a uniform basis and for identifying institutions requiring special attention. Changes in the banking industry and regulatory policies prompted a revision of the 1979 rating system. The 1996 revisions to UFIRS include the addition of a sixth component addressing sensitivity to market risk, the explicit reference to the quality of risk management processes in the management component, and the identification of risk elements within the composite and component rating descriptions.

The UFIRS takes into consideration certain financial, managerial, and compliance factors that are common to all institutions. Under this system, the supervisory agencies endeavor to ensure all financial institutions are evaluated in a comprehensive and uniform manner, and that supervisory attention is appropriately focused on institutions exhibiting financial and operational weaknesses or adverse trends.

The UFIRS also serves as a useful vehicle for identifying institutions with deficiencies in particular component areas. Further, the rating system assists Congress in assessing the aggregate strength of the financial industry and following risk management trends. As such, the UFIRS assists regulatory agencies in fulfilling their mission of maintaining stability and public confidence in the nation's financial system.

UFIRS Overview

Under the UFIRS, each financial institution is assigned a composite rating based on an evaluation of six financial and

operational components, which are also rated. The component ratings reflect an institution's capital adequacy, asset quality, management capabilities, earnings sufficiency, liquidity position, and sensitivity to market risk (commonly referred to as CAMELS ratings). When assigning ratings, examiners take into consideration an institution's size and sophistication, the nature and complexity of its activities, and its general risk profile.

Composite and component ratings are assigned based on a numerical scale from 1 to 5, with 1 indicating the highest rating, strongest performance and risk management practices, and least degree of supervisory concern. A 5 rating indicates the lowest rating, weakest performance and risk management practices, and highest degree of supervisory concern.

A bank's composite rating generally bears a close relationship to its component ratings. However, the composite rating is not derived by averaging the component ratings. Each component rating is based on a qualitative analysis of the factors comprising that component and its interrelationship with other components. When assigning a composite rating, some components may be given more weight than others depending on the situation at an institution. In general, assignment of a composite rating may incorporate any factor that bears significantly on the overall condition of the financial institution. Composite and component ratings are disclosed to an institution's board of directors and senior management. However, banks cannot, except in very limited circumstances, disclose the ratings or any part of a report of examination (ROE) without the prior written consent of their primary regulator.

Management's ability to respond to changing circumstances and address risks that result from new business conditions, activities, or products, is an important factor in determining an institution's risk profile and the level of supervisory concern. For this reason, the management component is given special consideration when assigning a composite rating.

The ability of management to identify and control the risks of its operations is also taken into account when assigning each component rating. All institutions are expected to properly manage their risks; however, it is recognized that appropriate management practices vary considerably among financial institutions depending on their size, complexity, and risk profile. Less complex institutions engaged solely in traditional banking activities and whose directors and senior managers are actively involved in the oversight and management of day-to-day operations may use relatively basic risk assessment, risk management, and internal control systems. At more complex institutions, formal, multifaceted systems and controls are needed to address their broader range of financial activities and to provide senior managers and directors with the information they need to monitor and direct day-to-day activities.

Consumer Compliance, Community Reinvestment Act, and specialty examination findings and ratings are also taken into consideration, as appropriate, when assigning component and composite ratings under UFIRS. The specialty examination areas include: Bank Secrecy Act, Information Technology, Trust, Government Security Dealers, Municipal Security Dealers, and Registered Transfer Agent.

An addendum at the end of this section contains UFIRS composite and component rating definitions and descriptions.

Disclosure of Ratings

The FDIC believes that disclosure of the UFIRS component and composite ratings to bank management is appropriate. The impact the financial services industry has on the general economy magnifies the importance of sound risk management practices. In this environment, the examination process is enhanced through disclosure of the UFIRS ratings by encouraging a more open and complete discussion of examination findings and recommendations. Disclosure also provides management with useful information for making effective risk management decisions.

Additionally, open discussion of the CAMELS ratings provides institutions with a better understanding of how ratings are derived, and enables management to better address any weaknesses in specific areas.

Discussions with Management

Generally, the examiner-in-charge (EIC) should discuss the recommended component and composite ratings with senior management and, when appropriate, the board of directors, within a reasonable proximity to the conclusion of the examination. Examiners should clearly explain that their ratings are tentative and subject to the review and final approval by the regional director or designee. Examiners should follow regional guidance regarding the disclosure of component and composite ratings of 3 or worse. Generally, in these situations, examiners should contact the regional office overseeing the institution and discuss the proposed ratings with the case manager or assistant regional director prior to disclosing the ratings to management or the board.

Examiners should discuss with management and the board, the key factors they considered when assigning component and composite ratings. Examiners should also explain the composite rating is not based on a numerical average, but rather a qualitative evaluation of an institution's overall

managerial, operational, and financial performance.

The management component rating may be particularly sensitive and important. The quality of management is often the single most important element in the successful operation of an insured institution. It is usually the factor most indicative of how well risk is identified and controlled. For this reason, examiners should thoroughly review and explain the factors considered when assigning the management rating. Written comments in support of the management rating should include an assessment of the effectiveness of existing policies and procedures in identifying and managing risks.

Finally, management should be reminded that all examination findings, including the composite and component ratings, whether disclosed verbally or in the written report of examination, are subject to the confidentiality rules imposed by Part 309 of the FDIC's Rules and Regulations.

Examination Letters

The FDIC's expectations for troubled institutions should be clearly communicated to bank management between the close of an examination and the issuance of an enforcement action. An examination letter should be delivered by FDIC Field Supervisors to chief executive officers/presidents during examination exit meetings, or earlier, for any bank newly-assigned a CAMELS composite 3 rating or worse.

Examination letters should notify management their institution's composite rating was tentatively downgraded and convey the expectation that management stabilize their institution's risk profile and strengthen its financial condition. The letter should notify management that actions taken to materially expand the institution's balance sheet or risk profile are inconsistent with supervisory expectations. The letter should also inform management they are required to obtain a non-objection from their regional director before engaging in any transactions that would materially change the institution's balance sheet composition, such as significantly increasing total assets or volatile funding sources. If practical, state banking departments should be included as a joint issuer of examination letters relating to FDIC supervised examinations. Furthermore, arrangements should be made to issue an examination letter relating to state authority examinations in which a downgrade is anticipated.

Immediate corrective measures, including the issuance of a temporary order requiring an institution to cease and desist, may be appropriate in higher-risk situations, such as when management:

- Fails to follow instructions in the examination letter,
- Does not acknowledge, or is slow to address, the institution's problems,
- Takes actions that compound the institution's problems,
- Increases the use of volatile funding sources,
- Extends credit in an unsafe and unsound manner,
- Pays excessive dividends, salaries, or bonuses, or
- Makes unjustified payments to institution-affiliated parties.

EXAMINATION FREQUENCY

The first priority of the Division of Risk Management Supervision (RMS) is the effective oversight of banks requiring special attention. The identification and supervision of banks requiring special attention is best accomplished through the examination process.

Section 337.12 of the FDIC Rules and Regulations implements Section 10(d) of the FDI Act and governs the frequency of examinations for insured state nonmember banks. Section 347.211 governs the examination frequency of branches of foreign banks.

Section 337.12 requires an annual full-scope on-site examination of every insured state nonmember bank at least once during each 12-month period. Annual examination intervals may be extended to 18 months under the following conditions:

- The bank has total assets of $500 million or less,
- The bank is well capitalized as defined in Section 325.103 of the FDIC Rules and Regulations,
- The bank was assigned a management component rating of 1 or 2 at the most recent FDIC or applicable state banking agency examination,
- The bank was assigned a composite rating of 1 or 2 at the most recent FDIC or applicable state examination,
- The bank currently is not subject to a formal enforcement proceeding or order by the FDIC, OCC, or Federal Reserve System, and
- No person acquired control of the bank during the preceding 12-month period in which a full-scope on-site examination would have been required but for the above noted exceptions.

These rules apply similarly to U.S. branches or agencies of a foreign bank with total assets less than $500 million if the office received a composite ROCA rating of 1 or 2 at its most recent examination. In all cases, the FDIC reserves the right to examine more frequently if they deem it necessary.

The FDIC strives to provide risk management and specialty examinations of all state nonmember banks within prescribed

intervals. If examination frequency requirements, other than a few nominal and non-recurring exceptions, cannot be met, regional directors should prepare and submit a memorandum to the Director of RMS. The memorandum should include a description of the nature and cause of the situation and a description of any needed, planned, or implemented corrective measures designed to maintain an adequate supervision program.

Alternate Examinations

Examinations may be conducted in alternate 12 (or 18) month periods if the FDIC determines that a full-scope, on-site examination completed by the appropriate state supervisory authority during the interim period is acceptable. However, such alternate examinations should be accepted only for the following institutions: composite 1- or 2-rated institutions, and for stable and improving composite 3-rated institutions if the composite rating is confirmed by the Statistical Camels Offsite Review (SCOR) review program and no adverse trends are noted from other available information. The length of time between the end of one examination and the start of the next (whether one or both of the examinations are conducted by a state supervisory agency or the FDIC) should not exceed 12 (or 18) months.

For purposes of monitoring compliance with examination frequency schedules, the end of the examination is defined as the earlier of the date the EIC submits the report for review, or 60 calendar days from the examination start date as defined in the Report of Examination Instructions.

Specialty Examination Intervals

The statutory requirements in Section 10(d) of the FDI Act do not apply to specialty examinations. Thus, specialty examinations are governed by internal RMS policy. Specialty examinations should generally be conducted concurrently with risk management examinations, except when the size or arrangement of a department makes it impractical or inefficient to do so. Although there will be some differences, specialty examinations are generally subject to the same examination intervals, including appropriate extensions, as risk management examinations.

Regional directors can make reasonable adjustments to specialty examination intervals to accommodate concurrent examinations where rating differences or alternate state examinations result in examination intervals that are not conducive to scheduling concurrent examinations. Reasonable adjustments include extending the examination cycle for 1- and 2-rated specialty areas. Although not permitted by statute for safety and soundness examinations, internal policy allows regional directors to also extend the examination cycle for 3-rated specialty areas. Specialty areas rated 4 or 5 should normally not be extended beyond a one-year interval. Additionally, since Municipal Securities Dealers are subject to a two-year examination cycle under Municipal Securities Rulemaking Board rules, any adjustment in this area should not exceed the two-year requirement. The possibility of conducting specialty examinations with state authorities should be explored if reasonable adjustments can be made.

When the state supervisory authority has examination responsibility for the safety and soundness examination of an institution, it will not be the responsibility of the FDIC to conduct any specialty examinations that are not conducted by the state supervisory authority, with the exception of BSA examinations. If safety and soundness examinations are conducted under the alternating examination cycle program, and the state does not conduct a BSA examination, then the FDIC is required to conduct a BSA examination.

Insured Branches of Foreign Banks

Insured branches of foreign banks are required to be examined every 12 months under Section 10(d) of the FDI Act. However, Section 347.211 of the FDIC Rules and Regulations specifies that domestic branches of foreign banks may be considered for an 18-month examination cycle when certain criteria are met and no other factors suggest more frequent examinations are necessary. To be eligible for an extended 18-month examination cycle, a US branch of a foreign bank must:

- Have total assets of less than $500 million,
- Have a composite ROCA supervisory rating of 1 or 2 at its most recent examination,
- Not be subject to a formal enforcement action,
- Not have undergone a change in control during the preceding 12-month period; and
- Have Tier 1 and total risk-based capital ratios (at the foreign bank) of at least 6 percent and 10 percent, respectively, when reported on a consolidated basis; or
- Has maintained on a daily basis, over the previous three quarters, eligible assets in an amount not less than 108 percent of the preceding quarter's average third party liabilities, and sufficient liquidity is currently available to meet its obligations to third parties.

Additional factors may also be considered in determining examination frequency, including certain discretionary standards outlined in Section 347.211.

EXAMINATION TYPES

Risk Focused Supervision

Effective risk management has always been central to safe and sound banking activities and has become more important as new technologies, product innovation, and the size and speed of financial transactions have changed the nature of banking. The objective of a risk-focused examination is to efficiently and effectively evaluate the safety and soundness of a bank. Examiners should focus their resources on a bank's highest risk areas when assessing risk management programs, financial conditions, internal controls, etc. The exercise of examiner judgment to determine the scope and depth of review in each functional area is crucial to the success of the risk-focused supervisory process.

The most effective examination approach focuses examiner resources on assessing management's ability to identify and control risks. Internal and external audits, loan reviews, and other control activities are integral considerations in an assessment of a bank's risk profile. Refer to the Internal Routine and Controls section of this Manual for an in depth discussion of this area.

Examiners should consider the adequacy of audit and control practices in determining a bank's risk profile and, when appropriate, try to reduce regulatory burdens by testing rather than duplicating the work of a bank's audit and control functions. Transaction testing remains a reliable and essential examination technique for use in the assessment of a bank's condition. However, the amount of transaction testing necessary to evaluate activities generally depends on the quality of the bank's risk management processes. Once the integrity of the bank's risk management system is verified through testing, conclusions regarding the extent of risks within an activity can often be based on the results of internal reports rather than in-depth, onsite assessments.

Full Scope Examinations

The minimum requirements of a full-scope examination are defined as the procedures necessary to complete the mandatory pages of the uniform ROE and evaluate all components of the UFIRS/CAMELS (Capital, Asset Quality, Management, Earnings, Liquidity, and Sensitivity to Market Risk) rating system. The completion of additional steps and pages may often be appropriate.

In a full scope examination, all examination activities are considered in the overall assessment of the institution. These activities include the Risk Management, Information Technology, Bank Secrecy Act/Anti-Money Laundering and Office of Foreign Assets Control, Trust, Registered Transfer Agent, Municipal Securities Dealer, and Government Securities Dealer examination programs. Summary comments and ratings should be brought forward and consolidated in the risk management ROE. Compliance/Community Reinvestment Act examination activities are included in the overall supervision program, although separate reports and examination cycles will continue.

Limited Scope Examinations and Visitations

The terms limited scope examination and visitation are interchangeable and may be defined as any examination that does not meet the minimum requirements of a full-scope examination. Since limited scope examinations and visitations are not full-scope examinations, they do not satisfy the requirements of Section 10(d) of the FDI Act. Limited scope examinations and visitations have a flexible format and may be used to determine changes in an institution's risk profile, monitor compliance with a corrective program, or comply with SCOR follow-up requirements. They may also be used to investigate adverse or unusual situations, determine progress in correcting deficiencies, act as an investigative or supervisory tool, or to comply with schedules described under Other Situations below.

Limited scope examinations and visitations may address the overall condition of the institution, including material changes since the previous examination and areas that exhibit more than normal risk. Depending on the scope and purpose of the examination or visitation, examiners can assign composite ratings, as well as component ratings for areas that were sufficiently reviewed. Ratings of component areas that were not reviewed should be carried forward from the previous examination.

Completion of the standard examination report form is not required, although appropriate report pages may be included if considered necessary to clarify a finding or recommendation. Results should generally be conveyed in a memorandum from the examiner-in-charge (EIC) to the regional director. If the examination or visitation results are to be sent to the institution, they can be in any appropriate form (letter or other suitable format).

Other Situations

In addition to the preceding instructions, examinations should be performed in the following situations:

Institutions Subject to Corrective Actions

Supervisory strategies for institutions operating under an enforcement action, particularly formal actions, should, in

most cases, include interim on-site limited scope examinations or visitations. The on-site reviews should include an evaluation of management's understanding of, and adherence to, the provisions of the corrective program. Limited scope examinations or visitations should be scheduled within six months after an enforcement action is issued to evaluate an institution's progress in addressing the corrective program. Particular attention should be focused on the primary cause of the institution's problems and the principal objectives of corrective programs. Where a decision is made to forego or delay the interim on-site activity, the reasons should be documented in regional office files.

Newly Chartered Insured Institutions

Adverse economic and other factors often negatively affect newly organized institutions more than they do established institutions. Further, failures of de novo institutions demonstrate that unseasoned institutions can pose a significant risk to the Deposit Insurance Fund and therefore, warrant enhanced supervision and monitoring.

Some newly organized institutions pursue early changes in established business plans. In some cases, those changes lead to increased risk and financial problems if accompanying controls and risk management practices are inadequate. Common risk elements observed at troubled or failed de novo institutions during their first seven years of operation include:

- Rapid growth,
- Over reliance on volatile funding sources,
- Concentrations without compensating controls,
- Significant deviations from approved business plans,
- Non-compliance with the order approving deposit insurance,
- Weak risk management practices,
- Unseasoned loan portfolios,
- Significant consumer protection problems, or
- Problematic third-party relationships.

Examination and Visitation Cycles

If a newly chartered and insured institution is a subsidiary of a multi-bank holding company that is in satisfactory condition, normal examination cycles should be followed at the regional director's discretion; otherwise, a limited scope examination should be conducted within the first six months of operation and a full-scope examination within the first twelve months of operation. Subsequent to the first examination and through the seventh year of operation, at least one examination should be performed each year. Extended examination intervals should not be applied in the first seven years of operation. After the initial full-scope examination, examinations may be alternated with the state supervisory authority.

Monitoring Activities

During the seven-year de novo period, regional offices have a responsibility to monitor de novo institutions' activities, review compliance with any conditions of deposit insurance orders, and track performance in relation to approved business plans. Significant changes to business plans must be submitted to the appropriate regional office for approval. Examiners assist in those monitoring activities by:

- Conducting general visitation and examination procedures,
- Assessing institutions' overall risk profiles and management capabilities,
- Reviewing institutions' conformity with business plans,
- Evaluating compliance with any outstanding conditions, and
- Documenting their findings in reports of examination.

Changes in Business Plans

There is a significant degree of judgment involved in determining a major deviation or material change in a business plan. Such changes may be evidenced by shifts in asset or liability mix, variances in loan, deposit, or total asset volumes from original projections, or the introduction or deletion of a specific business strategy (such as the initiation of subprime lending or the gathering of brokered deposits). Business plans generally address a number of factors which include, but are not limited to:

- Geographic markets,
- Loan products and services,
- Investment strategies and levels,
- Deposit products and services,
- Other services, such as private banking or trust services,
- Liquidity strategies and funding sources,
- Delivery channels, particularly through third party relationships,
- Fixed-assets (e.g. branches/loan production offices),
- Other activities (on- or off-balance sheet), including fee-for-service activities,
- Customer categories (such as money services businesses or foreign financial institutions), and
- Relationships with parent organizations and affiliates.

State nonmember banks requesting deposit insurance must agree to obtain the prior approval of the FDIC for any material change to their business plan. Any significant change in the items listed above should generally be viewed as a material change in business plan. Such changes may be

evidenced by significant (+/- 25%) deviation in asset growth projections; changes in the asset/liability mix or products and services offered; or the introduction of new business strategies such as an unplanned establishment of loan production offices or use of third parties to broker, underwrite, or originate credit on behalf of the institution.

Converting to Insured Nonmember Status

A full-scope examination should be conducted within twelve months of the last examination prior to conversion for national, state member, and thrift institutions. For noninsured institutions converting to insured status, a full-scope examination should be conducted within twelve months of the last examination prior to conversion. If the last examination was conducted by the state authority, the regional director has the discretion to accept it. However, such an examination should be accepted only for composite 1- or 2-rated institutions.

Change of Ownership Control

A full-scope examination should be conducted within twelve months after a change of control. Thereafter, standard examination intervals apply.

COORDINATING EXAM SCHEDULES

State Authorities

Every effort should be made to coordinate examination schedules with state authorities to take advantage of state resources, to minimize duplications of effort, and to lessen business disruptions to institutions. A representative of the regional office should meet with representatives from each state banking authority to determine examination responsibilities for the upcoming year. Responsibilities may be defined by ratings, size, or location of institutions, or assigned by specific institutions as deemed appropriate. Such agreements should contain flexibility to allow either party to alter schedules with minimal notice. While state examination requirements should be considered in the coordination process, state requirements should not be the determining factor in the final agreement.

Holding Company Inspections and Subsidiary Institution Examinations

Examinations of holding company subsidiaries should be coordinated with other Federal agencies whenever possible. Particular emphasis for coordinating examinations should be placed on banking organizations with over $10 billion in consolidated assets and those banking organizations (generally with assets in excess of $1 billion) that exhibit financial weaknesses.

Examinations and inspections of insured subsidiary banks and bank holding companies that do not meet the foregoing criteria should be coordinated to the extent practical and where resources permit. regional directors (or designees) should meet periodically with representatives from other Federal agencies to develop coordinated schedules that will maximize the use of examination resources and enhance the efficiency of bank and bank holding company examinations. The coordination of examinations should focus on the use of common financial statement dates, where possible, and allow for joint discussions of examination findings with management. However, absolute concurrence, common as-of dates, and simultaneous starting dates are not required. Appropriate state regulatory agencies should also be kept informed and encouraged to participate in the coordinated Federal efforts affecting state chartered institutions.

Examinations of nonbank affiliates may be conducted at the discretion of the regional director, but independent examinations of holding companies supervised by the Federal Reserve may not be conducted without prior approval of the Washington Office.

Interstate Banking and Chain Banks

A coordinated supervisory strategy for interstate banking organizations (both intra- and inter-regional) should be developed. The supervisory strategy developed should combine traditional supervision of individual units with an appropriate top-down approach to assess risks and to monitor and coordinate supervisory actions. For these organizations, the regional director has discretion to omit, delay, or modify existing examination frequencies if the financial condition of the holding company and lead bank is considered satisfactory; the condition of the subsidiary units is believed to be satisfactory; control over all insured banks in the organization is effectively centralized; and, management is favorably regarded.

Regional directors are responsible for: (a) designating a lead Region to design an appropriate supervisory strategy for interstate banking organizations; and (b) ensuring pertinent information is conveyed in a timely manner to other RMS Regions and to appropriate Federal and State agencies.

Chain banking organizations generally involve a group of financial institutions or holding companies that are controlled by one individual or company. Regional directors are responsible for maintaining a record system for chain banking organizations and for developing an overall supervisory

strategy for these organizations. It is the policy of the Division to supervise banks that are part of a chain banking organization in a manner that considers the financial impact of the consolidated chain on the individual institutions within that chain. Refer to Section 4.3, Related Organizations for additional details on, and a full description of, chain banking organizations.

SCHEDULING GUIDELINES

Periodic onsite examinations are critical to the supervisory process and are an integral part of the examination program. Diversified risks in the industry and the volatile performance and financial condition of individual institutions necessitate emphasis on more frequent and less structured supervision. Investigations, phone calls, e-mails, limited scope examinations, correspondence, and other forms of customized contact should be made as necessary. The purpose is to identify and obtain corrections in an institution's policies and procedures before serious financial problems develop.

Pre-examination activities should include efforts to determine the activities and condition of nonbank subsidiaries. If not determinable in advance, this information should be obtained early in the examination in order to assess the necessity for, and depth of, subsidiary examinations.

A major component of the risk-focused supervisory approach is the flexibility to conduct examination activities at various times during the examination cycle based on risk or staffing considerations. However, it is anticipated that most examination activities will be conducted as of a single point-in-time near the end of the risk management examination cycle, particularly in well-rated institutions.

Anticipatory Supervision

To effectively prevent or mitigate serious problems in an institution, the conditions that caused, or may cause, problems must be identified and corrected early. Corrective action should be taken immediately upon identifying problems or unacceptable risk management practices. Corrective action taken after conditions have seriously deteriorated is often too late to avoid institutional failures. Moral suasion and informal agreements are normally sufficient when unacceptable risk levels or risk management practices are identified early, but formal action must be considered, even when an institution is rated 1 or 2, if circumstances warrant.

A forward-looking supervisory approach that identifies and seeks to correct objectionable conditions requires serious thought and a balanced response by examiners. Critical comments must be well-supported and based on facts, logic, and prudent supervisory standards. Although examiners can not predict future events, they should consider the likelihood that identified weaknesses will cause material problems in the future, and consider the severity of damage to an institution if conditions deteriorate. In questionable circumstances where formal action is considered, examiners should consult with their regional office while the examination is in progress regarding the material needed to support a potential action.

Scheduling Considerations

The success of a risk focused examination program depends largely on the effectiveness of preplanning efforts and assignment scheduling. The objective of a risk focused examination process is to identify problems early and devise solutions in the quickest, most efficient manner possible. In some instances, evidence of objectionable practices or conditions may indicate the need for an accelerated examination or visitation. In less severe situations, the information is retained and factored into the scheduling of future examinations.

In order for examiners to proactively assess potential deficiencies, it is critical for Field Supervisors and other personnel to be aware of, and have access to, pertinent documentation. Regional directors should ensure copies of relevant correspondence and other information that may affect scheduling decisions is documented and made available to scheduling personnel.

The following list includes sources of information that may have an influence in prioritizing assignments. Some of these items, such as involvement in FDIC assistance transactions, have supervisory schedules specified in internal policies. Other items are merely information that may or may not raise a concern depending on what else is known about a bank. However, these or similar items may signal that further follow-up is warranted during the examination. The list, while not all inclusive, reflects the need for supervision to be anticipatory, and provides a reminder of common information sources that may warrant consideration when scheduling.

Offsite Analysis and Monitoring

- SCOR Monitoring System
- Comprehensive Analytical Reports
- Interim Financial Reports
- Growth Monitoring System
- UBPR Analysis
- Press Releases

Other Financial Indicators

- Unusually high or fluctuating profit levels
- Significant operating losses
- Significant provision expenses to the Allowance for Loan and Lease Loss (ALLL)
- Significant levels of delinquent loans
- Significant changes in balance sheet composition
- Unusually elevated or rapidly growing asset concentrations
- High reliance on brokered funds
- Excessive trading
- Excessive dividends
- Unusually high or low ratios or numbers

Applications or Other Bank-Provided Data

- Merger activity
- Large defalcation
- Change of control
- Adverse audit report findings
- Newly insured institution
- Change in external auditor
- New subsidiary(s) or line(s)-of-business
- Cancellation of blanket bond insurance
- Exercise of a new power or profit center
- Acquiring party in an FDIC assisted transaction
- Large paydown/payoff of previously classified loans
- Affiliation with a problem institution/holding company

Known Characteristics

- Unusually high or low salaries
- Compensation linked to performance (income, loan or deposit growth)
- Significant litigation
- Infighting among officers or directors
- Officers or directors with past due loans
- Dominating or self-serving management
- Operating at the margin of laws and regulations
- Inexperienced or questionable management
- Substantial outside business interests of a key officer
- Conducting business with questionable firms
- Lack of diversity in business lines
- Higher-risk business strategies
- Refinancing poor quality loans
- Advertising above-market interest rates
- Large blocks of bank stock pledged as collateral
- Numerous or unusual affiliated loan participations
- Improper handling of correspondent bank accounts
- Sacrificing price or quality to increase loan volumes
- Hiring of a dismissed, unethical, or marginal officer

Other Bank Regulators

- Improper handling of correspondent bank accounts
- Increased or unusual loan participations among affiliated or closely-held institutions
- Large blocks of stock pledged as collateral
- Affiliation with a 3-, 4-, or 5-rated institution or holding company
- Large defalcation
- Banker with past due loans at another institution
- Loans classified at other institutions

Media

- New chief executive officer or chief lending officer
- Adverse publicity
- Annual or interim period losses
- Adverse economic event in a community
- Natural disaster such as a flood, fire, or earthquake
- Large defalcation
- Large financial commitment as sponsor or lead bank in a major project or development
- Banker death or disappearance
- Announcement of major new activity or department

Rumors/Observations/Other

- Change in external auditor
- High or sudden employee turnover
- Significant litigation against the institution or insiders
- Unusual activity in stock of the institution (price movement up or down, or heavy trading volume)
- Institution advertising above market rates
- Significant change in asset/liability compositions
- Questionable loans being booked
- Relationships with borrowers of questionable character
- Confidential or anonymous tips

RELYING ON STATE EXAMINATIONS

Section 349 of the Riegle Community Development and Regulatory Improvement Act of 1994 requires the FFIEC to issue guidelines establishing standards for the purpose of determining the acceptability of state reports of examination under Section 10(d)(3) of the FDI Act. Under Section 10(d)(3), a Federal banking agency may conduct an annual, on-site examination of an insured depository institution in alternate 12 (or 18) month periods if the agency determines that a state examination conducted during the intervening period is adequate. The standards issued by the FFIEC are to be used at the discretion of the appropriate Federal banking agency.

The supervisory divisions of the FDIC and the Board of Governors of the Federal Reserve System responsible for the examination of state-chartered, insured depository institutions, and the branches and agencies of foreign banks that have been chartered by the states, have a long history of coordinating with state banking departments to fulfill a mutual goal of promoting a safe and sound banking system. It is recognized that this close cooperation between the Federal and State regulators promotes efficiency in the examination process, reduces the regulatory burden on state-chartered, insured depository institutions, and improves the supervisory process.

The Federal and State banking agencies have worked together, to varying degrees, in the following areas:

- Conducting alternate, joint, and concurrent examinations of insured depository institutions, and of the branches and agencies of foreign banks that have been chartered by the states;
- Processing safety and soundness examination reports and applications on a timely basis;
- Using common examination report and application forms;
- Developing and issuing informal (e.g., board resolutions, memoranda of understanding or other similar agreements) and formal enforcement actions;
- Exchanging supervisory information;
- Offering Federal agency training programs to state examiners; and
- Providing access to the Federal agency databases.

The FDIC intends to continue these cooperative efforts to the maximum extent possible. It is recognized, however, that the adequacy of state budgeting, examiner staffing, and training are important factors to enhancing Federal and State coordination. The FDIC has entered into formal and informal arrangements with most state banking departments. These arrangements or working agreements generally address the following areas:

- The number of state-chartered, insured institutions to be examined on an alternating basis by the state banking department and by the FDIC;
- The frequency of safety and soundness examinations;
- The type of examinations to be conducted (independent, joint, or concurrent) by each agency;
- The pre-examination procedures to be performed;
- The responsibilities of each agency for processing reports of examination;
- The responsibilities of each agency for conducting specialty examinations (Compliance, IT, Trust, etc.);
- The procedures for coordinating informal and formal enforcement actions;
- The procedures for processing joint applications; and
- The procedures for sharing supervisory information.

These arrangements are structured to permit both Federal and State agencies the flexibility to conduct an independent examination subject only to notification to the other party. Generally, only institutions rated 1 or 2 are examined on an alternating basis allowing for a reasonable interval between examinations.

A hallmark of a successful program has been the flexibility to tailor cooperation to the particulars of each state and to the specifics of individual banks within a state, plus the reality of changing circumstances at both the Federal and State levels. The FFIEC guidelines strive to maintain that flexibility.

The FDIC will accept and rely on state reports of examination in all cases in which it is determined that state examinations enable the FDIC to effectively carry out its supervisory responsibilities. The following criteria may be considered, in whole or in part, when determining the acceptability of a state report of examination under Section 10(d) of the FDI Act:

- The completeness of the state examination report. The state report of examination should contain sufficient information to permit a reviewer to make an independent determination on the overall condition of the institution as well as each component factor and composite rating assigned under the UFIRS and commonly referred to as the CAMELS rating system, or the ROCA rating system used for branches and agencies of foreign banks.
- The adequacy of documentation maintained by state examiners to support observations made in examination reports.
- The ability over time of a state banking department to achieve examination objectives. At a minimum, the FDIC will consider the adequacy of state budgeting, examiner staffing and training, and the overall review and follow-up examination process of a state banking department. Accreditation of a state banking department by the Conference of State Bank Supervisors is among the factors that will be considered.
- The adequacy of any formal or informal arrangement or working agreement between a state banking department and the FDIC.

The FDIC, as part of its routine review of state examination reports, will assess the quality and scope of the reports to determine whether they continue to meet the general criteria noted above. The FDIC retains the option to conduct a follow-up examination in cases in which a state examination

report appears insufficient or the condition of an insured institution appears to be seriously deteriorating.

If a state and the FDIC have cooperative examination programs, regional directors may involve FDIC examiners in state examinations if an institution's condition is deteriorating, or areas of concern are identified.

The FDIC will work with state banking departments to resolve any concerns regarding the acceptability of each other's work, the operation of cooperative programs, or any other issues of mutual interest.

PRE-EXAMINATION ACTIVITIES

Thorough pre-examination planning is critical to the efficient completion of an examination. Effective pre-examination planning helps support scoping decisions in terms of work performed and areas to receive special attention. It can also help determine staffing needs in regards to the number and expertise of personnel required. Finally, it can enhance examination efficiencies and reduce disruptions at institutions.

Part of the pre-examination planning should address the need for, or extent of, branch examinations. It is the FDIC's practice to examine the various offices of a branch banking system on an as-needed basis only. Such decisions are within the province of the regional director or may be delegated by the regional director to the Field Supervisor or EIC of a particular examination.

In general, examinations represent a comprehensive and coordinated effort between Risk Management and specialty examiners in the assessment of an institution's overall risk profile. Information request letters from various functions scheduled for the upcoming examination (for example Risk Management, Information Technology, Bank Secrecy Act, and Trust examinations) should be coordinated and combined whenever practical. Examiners should take special care to tailor information request letters to the specific characteristics of the institution, and remove unnecessary and redundant information from the request lists.

As a general rule, bankers should be given at least two weeks notice of an upcoming safety and soundness examination in order to provide them with enough time to complete pre-examination requests. A shorter period is permissible if the institution is not unduly burdened, or if a shorter period is occasionally needed due to resource requirements. Exceptions to this general policy may include problem institutions, situations where management and ownership of the institution are identical, or in situations where conditions appear to be deteriorating rapidly.

Examiners should make every effort to conduct as many pre-, post-, and other examination procedures as reasonably possible off-site in order to minimize disruptions to an institution's normal business activities. Additionally, supervisors should be mindful of an institution's space and personnel limitations and schedule the number of examiners working on bank premises accordingly.

An examination procedures module titled Risk Scoping Activities is included in the Examination Documentation Modules. This module identifies and lists several activities to be completed by examiners during the pre-examination process. Refer to this module for additional guidance.

Reviewing External Audit Workpapers

Examiners are generally required to review the workpapers of the independent public accountant or other auditor performing the external auditing program of certain insured institutions that have been or are expected to be assigned a UFIRS composite rating of 4 or 5. A workpaper review is intended to provide information prior to or during an examination relating to an institution's internal control environment and its financial reporting practices. Thus, a workpaper review assists examiners in determining the scope of the examination and the procedures to be applied to different areas of operations.

Shared Loss Agreements

A shared loss agreement (SLA) is a contract between the FDIC and institutions that acquire failed bank assets. Under the agreements, the FDIC agrees to absorb a portion of the losses, if incurred, on specific assets (usually loans), purchased by an institution. If an institution makes recoveries on covered assets, they must reimburse the FDIC for part of the recoveries. Loss share agreements cover specific timeframes and are often written so the FDIC absorbs 80 percent of incurred losses (up to a stated threshold), and receives 80 percent of recoveries. To maintain loss coverage, institutions must adhere to the terms of their agreement and make good faith efforts to collect loans.

Note: The FDIC's reimbursement for losses on assets covered by an SLA is measured in relation to an asset's book value on the records of the failed institution on the date of its failure, not in relation to the acquisition-date fair value at which covered assets must be booked by an acquiring bank.

The FDIC uses different types of agreements for commercial loans and residential mortgages. Both types cover credit

losses and certain related expenses. However, for commercial assets, SLAs generally cover losses for five years and recoveries for eight years. For residential mortgages, SLAs generally cover losses and recoveries for ten years.

Shared loss agreements are designed to reduce the FDIC's burden of managing receivership assets and mitigate acquirers' losses. Banks should not allow shared loss considerations to unduly impact foreclosure decisions. Banks should only foreclose on properties after exhausting other loss-mitigation and workout options. To avoid unnecessary home foreclosures, most residential SLAs specifically require institutions to engage in loss-mitigation efforts in accordance with the FDIC's Mortgage Loan Modification Program or the national Home Affordable Modification Program.

Examination Considerations

Regional and field office personnel should regularly communicate with the Division of Resolutions and Receiverships (DRR) to coordinate activities and share SLA information. Pre-examination communication between examiners and DRR allows examiners to determine the type and extent of SLAs and find out if any issues exist that might affect an institution's safety and soundness. If any of a bank's assets are covered by a SLA, examiners should review the agreement and consider its implications when:

- Performing asset reviews,
- Assessing accounting entries,
- Assigning asset classifications, and
- Determining CAMELS ratings.

Risk management examiners should include a sample of SLA related commercial assets in their loan scope. The number of loans sampled should be sufficient to allow examiners to assess whether the assets are administered in a manner consistent with commercial assets not covered by SLAs. Examiners may determine it is unnecessary to include SLA related residential mortgages in their loan scope; however, SLA coverage should be considered when assigning adverse classifications to residential credits covered by SLAs.

In most cases, the portion of an asset covered by an SLA should not be subject to adverse classification because loss sharing represents a conditional guarantee from the FDIC. Generally, the amount that would otherwise be adversely classified (Substandard, Doubtful, or Loss), should be reduced by the applicable coverage rate (often 80 or 95 percent).

Risk management examiners are not expected to evaluate an institution's compliance with SLAs. Personnel from DRR evaluate compliance with SLAs; assess SLA related accounting, reporting, and recordkeeping systems; and review loss-claim certificates. However, risk management examiners should notify their regional office and DRR staff if they identify potential problems or nonconformance with an agreement.

Examiners should refer to internal directives for additional information.

Other Examination Considerations

As noted above, if any of a bank's assets are covered by a SLA, examiners should review the agreement and consider its implications during examinations or visitations. The following scheduling considerations apply to FDIC supervised institutions that received FDIC assistance, or were involved in purchase and assumption or deposit transfer transactions.

Acquiring institutions with total assets in excess of ten times the deposits acquired, which are rated composite 2 or better are exempt from the following requirements. State nonmember institutions: a visitation or limited scope examination should be conducted within 30 days of the transaction date to determine how funds from the FDIC are being used and whether the bank is in accordance with any applicable assistance agreement. A second visitation or limited scope examination should be conducted within six months of the transaction. A full-scope examination should be conducted within twelve months of the transaction. Thereafter, standard examination frequency schedules apply. A cooperative program should be established with the appropriate Federal agency for national, state member, and thrift institutions, to ensure that all institutions receiving FDIC funds are properly monitored and that the FDIC Regional Director is informed of important developments.

MEETINGS WITH MANAGEMENT

Ongoing communication between the examination staff and bank management is a critical element of effective bank supervision. Open communication helps ensure examination requests are met and disruptions to an institution's daily activities are minimized. During the pre-examination process, or on the first day of the examination, board members should be encouraged to attend any or all meetings conducted during an examination. Their attendance often improves communication with outside directors and increases director knowledge of the examination process. These meetings also provide an opportunity for directors to discuss their views with examiners on banking related matters, and give examiners the opportunity to gain further insight into the experience levels and leadership qualities of bank

management. While encouraging participation in these meetings, the EIC should emphasize that attendance is voluntary and that a lack of participation will not be viewed negatively.

Pre-planning communication to coordinate examination activities should address information requests (including the names of contact individuals), work space plans, and the general scope of the examination. Other informal meetings should be held as needed throughout the examination to discuss various topics and to gain management's perspective on local economic conditions and bank-specific issues. Prior to the conclusion of the examination, examiners should thoroughly discuss their findings and recommendations with senior management. Such meetings are critical in communicating examination findings to the bank and providing management an opportunity to respond. Exit meetings should fully apprise bank management of all deficiencies and recommendations that will be cited in the Report of Examination.

The following examples represent situations that will prompt meetings and encourage dialogue between examiners and management during the course of an examination. The circumstances of each examination will determine the type and number of meetings necessary, as well as the degree of formality required to schedule and conduct the meetings.

Pre-Examination Planning: The EIC or designee should conduct an on-site pre-examination meeting with bank management, or conduct a telephone conversation with management if an on-site meeting is not feasible, well in advance of the examination. The discussion should focus on topics that assist the EIC in scoping the examination, identifying information needs, gathering documents, and planning examination logistics. The meeting provides an opportunity to get management's perspective on economic conditions, primary challenges/risks, significant audit findings since the prior examination, and key risk-management processes. Primary topics of conversation should generally include current financial conditions; significant changes (planned or completed) to bank policies, personnel, or strategic direction; and any other significant changes since the previous examination. The EIC should also discuss how and when information requests will be sent to the bank (electronic or hard copies), and the method and timing any requested information will be delivered to examiners (FDICconnect, external media, or hard copies). Importantly, the delivery method(s) must meet the security measures discussed in the FDIC's e-Exam policies for the exchange, use, and storage of electronic information.

First Day Generally, the EIC and examination team should meet with senior management and staff during the first day of the examination for introductions, to request additional information, and to discuss other general examination requirements. Such meetings provide an opportunity to establish open lines of communication.

Follow-up on Prior Examination Issues Early in the examination, it is useful for the EIC to meet with senior management and discuss the bank's progress in responding to prior supervisory recommendations, as well as outstanding internal and external audit recommendations. This is also a good opportunity for examiners to gain management's perspectives on other bank-specific concerns.

Strategic Planning and Budget The EIC and management should discuss asset and/or capital growth plans, new business or business products, and other strategic and budget issues during the course of the examination.

Loan Discussion Management should participate in loan discussions and the initial review of adverse classifications, as appropriate, considering the size and condition of the institution and loan portfolio.

Material Preliminary Findings Normally, the EIC should notify senior management of major findings and possible recommendations before the final management meeting.

Management Meeting All major examination issues should be discussed with senior management as soon as practical during an examination. At a minimum, all significant issues should be discussed at the end of the examination, prior to meeting with the board of directors. As noted in the Examination Letters for Troubled Institutions section above, the FDIC's expectations for troubled institutions should be clearly communicated to bank management between the close of an examination and the issuance of an enforcement action.

Regardless of the number or type of meetings held, it is critical that examiners ensure on-going two-way communication with management. Such communication enhances the effectiveness of the examination process by allowing all parties to freely exchange information.

Meetings with Directors

The following policies have been established for meetings with boards of directors. These policies are designed to encourage director involvement in, and enhance director awareness of, FDIC supervisory efforts, and to increase the effectiveness of such efforts. The bank's composite rating is the most important variable in deciding if and when these meetings should be held. .

Banks Assigned a Composite 4 or 5 Rating

The EIC and the regional director or designee should meet with the board of directors (with the required quorum in attendance) during or subsequent to the examination. Additional meetings or contacts with the board of directors or appropriate board committee may be scheduled at the regional director's discretion.

Banks Assigned a Composite 3 Rating

The EIC should meet with the board (with the required quorum in attendance) during or subsequent to the examination. Regional office representation is at the discretion of the regional director. Additional meetings or other contacts with the board of directors or appropriate board committee may be scheduled at the discretion of the regional director or designee.

Banks Assigned a Composite Rating of 1 or 2

The EIC will meet with the board or a board committee during or subsequent to the examination when: 36 months or more have elapsed since the last such meeting; the management component of the CAMELS rating is 3, 4 or 5; any other CAMELS performance rating is 4 or 5; or any two performance ratings are 3, 4 or 5. It is important to note that meeting with a board committee (in lieu of the entire board) in conjunction with an examination is permissible only when the committee is influential as to policy, meets regularly, contains reasonable outside director representation and reports regularly to the entire board. Other factors that may be relevant to the decision of holding a board meeting include recent changes in control, ownership, or top management; adverse economic conditions; requests by management or the board for a meeting; or any unique conditions or trends pertinent to the institution. Regional office participation in meetings with composite-rated 1 or 2 banks is at the regional director's discretion.

Other Considerations

When a meeting is held in conjunction with an examination, reference should be made on the Examination Conclusions and Comments schedule as to the committee or board members, bank managers or personnel, and regulators in attendance. A clear but concise presentation of the items covered at the meeting, including corrective commitments and/or reactions of management, should also be indicated. If a meeting is held, but not in conjunction with an examination, a summary of the meeting, including the items noted above, should be prepared and a copy mailed to the institution, via certified mail, for consideration by the board and inclusion in the official minutes of the directorate's next meeting.

When it is concluded that a meeting with a board committee rather than the full board is appropriate, selection of the committee must be based on the group's actual responsibilities and functions rather than its title. In all cases, the committee chosen should include an acceptable representation of board members who are not full-time officers.

The success of a board meeting is highly dependent upon the examiner's preparation. A written agenda that lists all areas to be discussed and provides supporting documents or schedules generally enhances examiners' explanations of findings and recommendations. Failure to adequately prepare for a meeting can substantially diminish the supervisory value of an examination.

To encourage awareness and participation, examiners should inform bank management that the examination report (or copies thereof) should be made available to each director for thorough and timely review, and that a signature page is included in the examination report to be signed by each director after review of the report. Management should also be reminded that the report is confidential, remains the property of the FDIC, and that utmost care should be exercised in its reproduction and distribution. The bank should be advised to retrieve, destroy, and record the fact of destruction of any reproduced copies when they have served their purpose.

OTHER SOURCES OF EXAMINATION INFORMATION AND POLICY GUIDANCE

The primary purpose of this Manual is to provide policy guidance and direction to the field examiner that should be applied in the risk management examination process. Other policy manuals or other instructional materials pertaining to additional areas of examination interest, such as trust department operations, IT activities, transfer agent, and consumer compliance have also been developed. Those areas were not addressed significantly in this Manual in order to enhance the organization of the primary risk management material and to keep the document reasonable in length. However, exclusion of these topics in no way implies that these activities do not impact a safety and soundness examination. To the contrary, deficiencies in other aspects of a bank's operations can have a major impact on an institution's overall condition. Therefore, it is critical for examiners to be aware of the existence and understand the significance of deficiencies in other areas.

Specialty examination findings should be addressed in the ECC section of the risk management report of examination (ROE). The placement and length of related comments should be commensurate with the significance of the findings and the impact on risk management ratings. There are no

mandatory specialty examination pages; however, examiners may include specialty pages in the risk management ROE when separate pages are the most effective means to communicate findings.

If a specialty examination is conducted at a date substantially removed from other examination activities, examiners may communicate their findings through a visitation report and letter to the institution if warranted. However, summary comments should also be included in the risk management ROE and factored into risk management ratings.

In some situations, it may be necessary for examiners to conduct specialty examinations separately from the Risk Management examination. In these rare cases, a separate specialty examination report may be prepared, consistent with regional guidance and outstanding report preparation instructions.

To emphasize and illustrate how weaknesses in these ancillary activities can adversely affect the whole bank, a brief overview of trust, IT, BSA, and consumer protection activities is provided.

Trust Department

A bank's trust department acts in a fiduciary capacity when the assets it manages are not the bank's, but belong to and are for the benefit of others. This type of relationship necessitates a great deal of confidence on the part of customers and demands a high degree of good faith and responsibility on a bank's part. The primary objective of a trust department examination is to determine whether its operations or the administration of its accounts have given rise to possible or contingent liabilities, or direct liabilities (estimated losses), which could reduce the bank's capital accounts. If the terms of trust instruments are violated, if relevant laws and regulations are not complied with, or if generally accepted fiduciary standards are not adhered to, the department, and hence the bank, may become liable and suffer losses. If the magnitude of these losses is very high, the viability of the bank may be threatened. To aid examiners in evaluating a trust department, the Uniform Interagency Trust Rating System was devised. Composite ratings of 1 (highest level of performance) through 5 (most critically deficient level of performance) are assigned based on analysis of five critical areas of a trust department's administration and operations. These include Management; Operations, Internal Controls and Audits; Earnings; Compliance; and Asset Management.

Information Technology (IT)

Information technology services apply to virtually all recordkeeping and operational areas in banks. These IT services may be managed internally on a bank's own in-house computer system, or outsourced, wholly or in part, to an independent data center that performs most IT functions. Although some or all IT services may be outsourced, management and the board retain oversight responsibilities.

The potential consequences of receiving faulty data or suffering an interruption of services are serious and warrant comprehensive IT policies and procedures and thorough IT examinations. A primary objective of an IT examination is to determine the confidentiality, integrity, and availability of records produced by automated systems. Examination priorities include an evaluation of management's ability to identify risks and maintain appropriate compensating controls.

IT operations are rated in accordance with the Uniform Interagency Rating System for Information Technology (URSIT), which is based on an evaluation of four critical components: audit; management; development and acquisition; and support and delivery. The composite IT rating is influenced by the performance of the four component functions and reflects the effectiveness of a bank's IT risk management and information security programs and practices. A scale of 1 through 5 is used, wherein 1 indicates strong performance and 5 denotes critically deficient operating performance.

Most IT examinations are embedded in risk management ROEs and only include an URSIT composite rating. However, with approval from a regional director or their designee, examiners may conduct full-scope IT examinations that include composite and component ratings.

Bank Secrecy Act (BSA)

The Financial Recordkeeping and Reporting of Currency and Foreign Transactions Act of 1970 is often referred to as the Bank Secrecy Act (BSA). The purpose of the BSA is to ensure U.S. financial institutions maintain appropriate records and file certain reports involving currency transactions and customer relationships. Several acts and regulations that strengthen the scope and enforcement of BSA, anti-money laundering, and counter-terrorist-financing measures have been signed into law. Some of these include:

Money Laundering Control Act - 1986
Annuzio-Wylie Anti-Money Laundering Act - 1992
Money Laundering Suppression Act - 1994
Money Laundering and Financial Crimes Strategy Act - 1998
USA PATRIOT Act - 2001

Findings from BSA examinations are generally included

within the safety and soundness report; however, separate BSA examinations can be conducted. Although a separate rating system for BSA does not exist, BSA findings can affect both the management rating and the overall composite rating of the institution. Refer to the BSA section of this Manual for additional information.

Consumer Protection

The principal objective of consumer protection examinations is to determine a bank's compliance with various consumer, mortgage, and civil rights laws and regulations. Consumer protection statutes include, but are not limited to, Truth in Lending, Truth in Savings, Community Reinvestment Act, and Fair Housing regulations. Noncompliance with these regulatory restrictions and standards may result in an injustice to affected individual(s) and reflects adversely on an institution's management and reputation. Moreover, violations of consumer laws can result in civil or criminal liabilities, and consequently, financial penalties. If significant in amount, such losses could have an adverse financial impact on a bank. As is the case for IT and trust operations, an interagency rating system for consumer compliance has been designed. It provides a general framework for evaluating an institution's conformance with consumer protection and civil rights laws and regulations. A numbering scheme of 1 through 5 is used with 1 signifying the best performance and 5 the worst performance. A separate examination rating is assigned to each institution based on its performance in the area of community reinvestment. The four ratings are outstanding; satisfactory; needs to improve; and substantial noncompliance.

Summary

Risk management examiners should have a general knowledge of the key principles, policies, and practices relating to IT, BSA, consumer protection, trust, and other specialty examinations. Additionally, examiners should be knowledgeable of state laws and regulations that apply to the banks they examine; the rules, regulations, statements of policy and various banking-related statutes contained in the FDIC's rule and regulations; and the instructions for completing Consolidated Reports of Condition and Income.

DISCLOSING REPORTS OF EXAM

The Report of Examination is highly confidential. Although a copy is provided to a bank, that copy remains the property of the FDIC. Without the FDIC's prior authorization, directors, officers, employees, and agents of a bank are not permitted to disclose the contents of a report. Under specified circumstances, FDIC regulations permit disclosures by a bank to its parent holding company or majority shareholder.

Standard FDIC regulations do not prohibit employees or agents of a bank from reviewing the Report of Examination if it is necessary for purposes of their employment. Accountants and attorneys acting in their capacities as bank employees or agents may review an examination report without prior FDIC approval, but only insofar as it relates to their scope of employment. The FDIC believes the definition of agent includes an accountant or accounting firm which performs an audit of the bank.

Reports of Examination are routinely provided to a bank's chartering authority. Therefore, state bank examiners may review the bank's copy of an FDIC examination during a state examination.

EXAMINATION WORKPAPERS

Introduction

Examiners should document their findings through a combination of brief summaries, source documents, report comments, and other workpapers that clearly describe financial conditions, management practices, and examination conclusions. Documentation should generally describe:

- Key audit/risk scoping decisions,
- Core source documents reviewed, and
- General examination procedures performed.

Documentation should include summary statements. Summary statements can take many forms, including notations on copies of source documents, separate hand-written notes, comments in Examination Documentation (ED) modules, and electronic or hard-copy memorandums. At a minimum, summary comments should:

- Detail examination findings and recommendations,
- Describe supporting facts and logic, and
- Record management responses.

Although examination documentation may be maintained in various ways, examiners must securely retain appropriate supporting records of all major examination conclusions, recommendations, and assertions detailed in the Report of Examination.

Safeguarding Examination Information

Examination information may contain non-public customer information as defined in Section 501(b) of the Gramm-

Leach-Bliley Act. Therefore, examiners must exercise a high degree of care to safeguard information and control the access, storage and transport of information stored on laptops, retained on other storage media, or paper copies.

Examiners must protect FDIC property and data and respond quickly to any security breech. Examiners should:

- Protect computer equipment and data in transit,
- Track data in transit, and
- Secure unattended equipment and data.

Examiners must report unauthorized access to data and equipment on a timely basis**.** Examiners should contact the FDIC's Help Desk Staff within one hour after discovery; their supervisor as soon as possible; and in instances where theft of equipment is involved, contact the local police.

FDIC regional offices must develop procedures for accessing, transporting, storing, and disposing of electronic and paper information. The procedures should include minimum technical, physical, and administrative safeguards, and include an incident response program.

Refer to internal directives for additional information.

Examination Documentation Modules

Examination procedures have been developed jointly by the FDIC, the Federal Reserve, and various state agencies to provide examiners with tools to scope examination activities, evaluate financial conditions and risk-management practices, and document examination findings. The use of these modules is discretionary. When not used, examination findings should be documented as discussed above.

The ED modules incorporate questions and points of consideration into examination procedures that specifically address a bank's risk management strategies for each of its major business activities. The modules direct examiners to evaluate areas of risk and associated risk-control practices, thereby facilitating an effective supervisory program. The ED module examination procedures are generally separated into three distinct tiers: Core Analysis, Expanded Analysis, and Impact Analysis. The extent to which an examiner works through each of these levels of analysis depends upon the conclusions reached regarding the presence of significant concerns or deficiencies.

Where significant deficiencies or weaknesses are noted in the Core Analysis review, the examiner should complete the Expanded Analysis section, but only for the decision factors that present the greatest degree of risk to the bank. On the other hand, if risks are properly managed, examiners can conclude their review after documenting conclusions concerning the Core Analysis Decision Factors and carrying forward any applicable comments to the Report of Examination. The Expanded Analysis section provides guidance to examiners to help determine if weaknesses are material to a bank's condition or if an activity is inadequately managed.

The use of the modules should be tailored to the characteristics of each bank based on its size, complexity, and risk profile. As a result, the extent to which each module is completed will vary. Individual procedures presented for each level are meant only to serve as a guide for answering the decision factors. Each procedure does not require an individual response.

Substance of Workpapers

Appropriate documentation should be prepared and retained in the workpapers for each significant job task performed. A checklist of examination procedures performed may be used to document completed tasks and included as part of the examination workpapers. The checklist may also be used as the final documentation of lower-risk areas that receive limited reviews and findings are not material.

Examiners should use standardized loan line sheets except in special situations where alternative forms, such as institution generated line sheets, provide a clear and substantial time savings and the same general loan information. Line sheets must contain sufficient, albeit sometimes brief, supporting data to substantiate a pass or adverse classification.

For BSA examinations, examiners should document preliminary, core, and expanded procedures as needed, in accordance with current guidance relating to BSA/AML workprograms for examination procedures.

Workpaper forms are available in GENESYS to supplement report pages for certain areas of review, such as risk-weighted assets and cash flow projections. When warranted, supplemental workpapers may be included in the Report of Examination to the extent that they provide material support for significant findings.

Filing of Workpapers

Workpapers relating to major assignments should be segregated and securely stored in separate folders, envelopes, or indexed binders. For example, workpapers generated for evaluating internal routines and controls may be filed together under one major heading or separately under the major categories reviewed. Line cards should be segregated from other workpapers, alphabetized, and securely banded.

When electronic workpapers are retained, the electronic media must be encrypted, password protected, and stored in a locked facility. Non-FDIC issued laptops, desktops, or other electronic devices may not be used to store institution-provided information or examination workpapers.

BSA workpapers should be maintained separately from the workpapers of the risk management examination and must be retained for five years. The separate retention of BSA workpapers will expedite their submission to the Treasury Department in the event that they are requested for an investigation.

Each folder, envelope, or binder should be labeled with the institution's name and location, the date of examination, and a list of documents that have been prepared and retained for each category. At its discretion, each region and field office may designate the major documentation categories and supplemental lists for their respective office(s). The workpaper folders, envelopes, or binders should then be organized in a labeled box, expandable file, or other appropriate centralized filing system and retained at the conclusion of the examination. The EIC is responsible for ensuring outdated workpapers are appropriately purged and current workpapers are properly organized and filed.

Retention of Workpapers

Line sheets should generally be retained for one examination cycle, after which they may be purged from the active loan deck. Risk Management, IT, and Trust Officer's Questionnaires and BSA workpapers should be retained for a minimum of five years from the examination start date. Officer Questionnaires should be retained indefinitely when irregularities are discovered or suspected, especially if the signed questionnaire may provide evidence of these irregularities. The examiner may submit a copy of the Officer's Questionnaire with the Report of Examination if circumstances warrant, such as when the examiner suspects that an officer knowingly provided incorrect information on the document. Retention of other workpapers beyond one examination should generally be confined to those banks with existing or pending administrative actions, special documents relating to past insider abuse, documents which are the subject of previous criminal referral letters, or other such sensitive documents. While the retention of workpapers beyond one examination cycle is generally discouraged, major schedules and other pertinent workpapers can be retained if deemed useful. Additionally, if a bank's composite rating is 3 or worse, most workpapers should be maintained until the bank returns to a satisfactory condition.

ADDENDUM TO SECTION 1.1

UFIRS RATINGS DEFINITIONS

Composite Ratings

Composite ratings are based on a careful evaluation of an institution's managerial, operational, financial, and compliance performance. The six key components used to assess an institution's financial condition and operations are: capital adequacy, asset quality, management capability, earnings quantity and quality, liquidity adequacy, and sensitivity to market risk. The composite ratings are defined as follows:

Composite 1

Financial institutions in this group are sound in every respect and generally have components rated 1 or 2. Any weaknesses are minor and can be handled in a routine manner by the board of directors and management. These financial institutions are the most capable of withstanding the vagaries of business conditions and are resistant to outside influences such as economic instability in their trade area. These financial institutions are in substantial compliance with laws and regulations. As a result, these financial institutions exhibit the strongest performance and risk management practices relative to the institution's size, complexity, and risk profile, and give no cause for supervisory concern.

Composite 2

Financial institutions in this group are fundamentally sound. For a financial institution to receive this rating, generally no component rating should be more severe than 3. Only moderate weaknesses are present and are well within the board of directors' and management's capabilities and willingness to correct. These financial institutions are stable and are capable of withstanding business fluctuations. These financial institutions are in substantial compliance with laws and regulations. Overall risk management practices are satisfactory relative to the institution's size, complexity, and risk profile. There are no material supervisory concerns and, as a result, the supervisory response is informal and limited.

Composite 3

Financial institutions in this group exhibit some degree of supervisory concern in one or more of the component areas. These financial institutions exhibit a combination of weaknesses that may range from moderate to severe; however, the magnitude of the deficiencies generally will not cause a component to be rated more severely than 4. Management may lack the ability or willingness to effectively address weaknesses within appropriate time frames. Financial institutions in this group generally are less capable of withstanding business fluctuations and are more vulnerable to outside influences than those institutions rated a composite 1 or 2. Additionally, these financial institutions may be in significant noncompliance with laws and regulations. Risk management practices may be less than satisfactory relative to the institution's size, complexity, and risk profile. These financial institutions require more than normal supervision, which may include formal or informal enforcement actions. Failure appears unlikely, however, given the overall strength and financial capacity of these institutions.

Composite 4

Financial institutions in this group generally exhibit unsafe and unsound practices or conditions. There are serious financial or managerial deficiencies that result in unsatisfactory performance. The problems range from severe to critically deficient. The weaknesses and problems are not being satisfactorily addressed or resolved by the board of directors and management. Financial institutions in this group generally are not capable of withstanding business fluctuations. There may be significant noncompliance with laws and regulations. Risk management practices are generally unacceptable relative to the institution's size, complexity, and risk profile. Close supervisory attention is required, which means, in most cases, formal enforcement action is necessary to address the problems. Institutions in this group pose a risk to the deposit insurance fund. Failure is a distinct possibility if the problems and weaknesses are not satisfactorily addressed and resolved.

Composite 5

Financial institutions in this group exhibit extremely unsafe and unsound practices or conditions; exhibit a critically deficient performance; often contain inadequate risk management practices relative to the institution's size, complexity, and risk profile; and are of the greatest supervisory concern. The volume and severity of problems are beyond management's ability or willingness to control or correct. Immediate outside financial or other assistance is needed in order for the financial institution to be viable. Ongoing supervisory attention is necessary. Institutions in this group pose a significant risk to the deposit insurance fund and failure is highly probable.

Component Ratings

Each of the component rating descriptions are divided into an introductory paragraph, a list of principal evaluation factors, and a brief description of each numerical rating. Some of the evaluation factors are reiterated under one or more of the

other components to reinforce the interrelationship between components. The evaluation factors for each component rating are in no particular order of importance.

Capital Adequacy

A financial institution is expected to maintain capital commensurate with the nature and extent of risks to the institution and the ability of management to identify, measure, monitor, and control these risks. The effect of credit, market, and other risks on the institution's financial condition should be considered when evaluating the adequacy of capital. The types and quantity of risk inherent in an institution's activities will determine the extent to which it may be necessary to maintain capital at levels above required regulatory minimums to properly reflect the potentially adverse consequences that these risks may have on the institution's capital.

The capital adequacy of an institution is rated based upon, but not limited to, an assessment of the following evaluation factors:

- The level and quality of capital and the overall financial condition of the institution;
- The ability of management to address emerging needs for additional capital;
- The nature, trend, and volume of problem assets, and the adequacy of allowances for loan and lease losses and other valuation reserves;
- Balance sheet composition, including the nature and amount of intangible assets, market risk, concentration risk, and risks associated with nontraditional activities;
- Risk exposure represented by off-balance sheet activities;
- The quality and strength of earnings, and the reasonableness of dividends;
- Prospects and plans for growth, as well as past experience in managing growth; and
- Access to capital markets and other sources of capital including support provided by a parent holding company.

Ratings

A rating of 1 indicates a strong capital level relative to the institution's risk profile.

A rating of 2 indicates a satisfactory capital level relative to the financial institution's risk profile.

A rating of 3 indicates a less than satisfactory level of capital that does not fully support the institution's risk profile. The rating indicates a need for improvement, even if the institution's capital level exceeds minimum regulatory and statutory requirements.

A rating of 4 indicates a deficient level of capital. In light of the institution's risk profile, viability of the institution may be threatened. Assistance from shareholders or other external sources of financial support may be required.

A rating of 5 indicates a critically deficient level of capital such that the institution's viability is threatened. Immediate assistance from shareholders or other external sources of financial support is required.

Asset Quality

The asset quality rating reflects the quantity of existing and potential credit risk associated with the loan and investment portfolios, other real estate owned, and other assets, as well as off-balance sheet transactions. The ability of management to identify, measure, monitor, and control credit risk is also reflected here. The evaluation of asset quality should consider the adequacy of the Allowance for Loan and Lease Losses (ALLL) and weigh the exposure to counter-party, issuer, or borrower default under actual or implied contractual agreements. All other risks that may affect the value or marketability of an institution's assets, including, but not limited to, operating, market, reputation, strategic, or compliance risks, should also be considered.

The asset quality of a financial institution is rated based upon, but not limited to, an assessment of the following evaluation factors:

- The adequacy of underwriting standards, soundness of credit administration practices, and appropriateness of risk identification practices;
- The level, distribution, severity, and trend of problem, classified, nonaccrual, restructured, delinquent, and nonperforming assets for both on- and off-balance sheet transactions;
- The adequacy of the allowance for loan and lease losses and other asset valuation reserves;
- The credit risk arising from or reduced by off-balance sheet transactions, such as unfunded commitments, credit derivatives, commercial and standby letters of credit, and lines of credit;
- The diversification and quality of the loan and investment portfolios;
- The extent of securities underwriting activities and exposure to counter-parties in trading activities;
- The existence of asset concentrations;
- The adequacy of loan and investment policies, procedures, and practices;
- The ability of management to properly administer its

assets, including the timely identification and collection of problem assets;
- The adequacy of internal controls and management information systems; and
- The volume and nature of credit-documentation exceptions.

Ratings

A rating of 1 indicates strong asset quality and credit administration practices. Identified weaknesses are minor in nature and risk exposure is modest in relation to capital protection and management's abilities. Asset quality in such institutions is of minimal supervisory concern.

A rating of 2 indicates satisfactory asset quality and credit administration practices. The level and severity of classifications and other weaknesses warrant a limited level of supervisory attention. Risk exposure is commensurate with capital protection and management's abilities.

A rating of 3 is assigned when asset quality or credit administration practices are less than satisfactory. Trends may be stable or indicate deterioration in asset quality or an increase in risk exposure. The level and severity of classified assets, other weaknesses, and risks require an elevated level of supervisory concern. There is generally a need to improve credit administration and risk management practices.

A rating of 4 is assigned to financial institutions with deficient asset quality or credit administration practices. The levels of risk and problem assets are significant, inadequately controlled, and subject the financial institution to potential losses that, if left unchecked, may threaten its viability.

A rating of 5 represents critically deficient asset quality or credit administration practices that present an imminent threat to the institution's viability.

Management

The capability of the board of directors and management, in their respective roles to identify, measure, monitor, and control the risks of an institution's activities and to ensure a financial institution's safe, sound, and efficient operation in compliance with applicable laws and regulations is reflected in this rating. Generally, directors need not be actively involved in day-to-day operations; however, they must provide clear guidance regarding acceptable risk exposure levels and ensure that appropriate policies, procedures, and practices have been established. Senior management is responsible for developing and implementing policies, procedures, and practices that translate the board's goals, objectives, and risk limits into prudent operating standards.

Depending on the nature and scope of an institution's activities, management practices may need to address some or all of the following risks: credit, market, operating or transaction, reputation, strategic, compliance, legal, liquidity, and other risks. Sound management practices are demonstrated by active oversight by the board of directors and management; competent personnel; adequate policies, processes, and controls taking into consideration the size and sophistication of the institution; maintenance of an appropriate audit program and internal control environment; and effective risk monitoring and management information systems. This rating should reflect the board's and management's ability as it applies to all aspects of banking operations as well as other financial service activities in which the institution is involved.

The capability and performance of management and the board of directors is rated based upon, but not limited to, an assessment of the following evaluation factors:

- The level and quality of oversight and support of all institution activities by the board of directors and management;
- The ability of the board of directors and management, in their respective roles, to plan for, and respond to, risks that may arise from changing business conditions or the initiation of new activities or products;
- The adequacies of, and conformance with, appropriate internal policies and controls addressing the operations and risks of significant activities;
- The accuracy, timeliness, and effectiveness of management information and risk monitoring systems appropriate for the institution's size, complexity, and risk profile;
- The adequacy of audits and internal controls to: promote effective operations and reliable financial and regulatory reporting; safeguard assets; and ensure compliance with laws, regulations, and internal policies;
- Compliance with laws and regulations;
- Responsiveness to recommendations from auditors and supervisory authorities;
- Management depth and succession;
- The extent that the board of directors and management is affected by, or susceptible to, dominant influence or concentration of authority;
- Reasonableness of compensation policies and avoidance of self-dealing;
- Demonstrated willingness to serve the legitimate banking needs of the community; and
- The overall performance of the institution and its risk profile.

Ratings

A rating of 1 indicates strong performance by management and the board of directors and strong risk management practices relative to the institution's size, complexity, and risk profile. All significant risks are consistently and effectively identified, measured, monitored, and controlled. Management and the board have demonstrated the ability to promptly and successfully address existing and potential problems and risks.

A rating of 2 indicates satisfactory management and board performance and risk management practices relative to the institution's size, complexity, and risk profile. Minor weaknesses may exist, but are not material to the safety and soundness of the institution and are being addressed. In general, significant risks and problems are effectively identified, measured, monitored, and controlled.

A rating of 3 indicates management and board performance that need improvement or risk management practices that are less than satisfactory given the nature of the institution's activities. The capabilities of management or the board of directors may be insufficient for the type, size, or condition of the institution. Problems and significant risks may be inadequately identified, measured, monitored, or controlled.

A rating of 4 indicates deficient management and board performance or risk management practices that are inadequate considering the nature of an institution's activities. The level of problems and risk exposure is excessive. Problems and significant risks are inadequately identified, measured, monitored, or controlled and require immediate action by the board and management to preserve the soundness of the institution. Replacing or strengthening management or the board may be necessary.

A rating of 5 indicates critically deficient management and board performance or risk management practices. Management and the board of directors have not demonstrated the ability to correct problems and implement appropriate risk management practices. Problems and significant risks are inadequately identified, measured, monitored, or controlled and now threaten the continued viability of the institution. Replacing or strengthening management or the board of directors is necessary.

Earnings

This rating reflects not only the quantity and trend of earnings, but also factors that may affect the sustainability or quality of earnings. The quantity as well as the quality of earnings can be affected by excessive or inadequately managed credit risk that may result in loan losses and require additions to the ALLL, or by high levels of market risk that may unduly expose an institution's earnings to volatility in interest rates. The quality of earnings may also be diminished by undue reliance on extraordinary gains, nonrecurring events, or favorable tax effects. Future earnings may be adversely affected by an inability to forecast or control funding and operating expenses, improperly executed or ill-advised business strategies, or poorly managed or uncontrolled exposure to other risks.

The rating of an institution's earnings is based upon, but not limited to, an assessment of the following evaluation factors:

- The level of earnings, including trends and stability;
- The ability to provide for adequate capital through retained earnings;
- The quality and sources of earnings;
- The level of expenses in relation to operations;
- The adequacy of the budgeting systems, forecasting processes, and management information systems in general;
- The adequacy of provisions to maintain the allowance for loan and lease losses and other valuation allowance accounts; and
- The earnings exposure to market risk such as interest rate, foreign exchange, and price risks.

Ratings

A rating of 1 indicates earnings that are strong. Earnings are more than sufficient to support operations and maintain adequate capital and allowance levels after consideration is given to asset quality, growth, and other factors affecting the quality, quantity, and trend of earnings.

A rating of 2 indicates earnings that are satisfactory. Earnings are sufficient to support operations and maintain adequate capital and allowance levels after consideration is given to asset quality, growth, and other factors affecting the quality, quantity, and trend of earnings. Earnings that are relatively static, or even experiencing a slight decline, may receive a 2 rating provided the institution's level of earnings is adequate in view of the assessment factors listed above.

A rating of 3 indicates earnings that need to be improved. Earnings may not fully support operations and provide for the accretion of capital and allowance levels in relation to the institution's overall condition, growth, and other factors affecting the quality, quantity, and trend of earnings.

A rating of 4 indicates earnings that are deficient. Earnings are insufficient to support operations and maintain appropriate capital and allowance levels. Institutions so rated may be characterized by erratic fluctuations in net income or net interest margin, the development of significant negative trends, nominal or unsustainable earnings, intermittent losses,

or a substantive drop in earnings from the previous years.

A rating of 5 indicates earnings that are critically deficient. A financial institution with earnings rated 5 is experiencing losses that represent a distinct threat to its viability through the erosion of capital.

Liquidity

In evaluating the adequacy of a financial institution's liquidity position, consideration should be given to the current level and prospective sources of liquidity compared to funding needs, as well as to the adequacy of funds management practices relative to the institution's size, complexity, and risk profile. In general, funds management practices should ensure that an institution is able to maintain a level of liquidity sufficient to meet its financial obligations in a timely manner and to fulfill the legitimate banking needs of its community. Practices should reflect the ability of the institution to manage unplanned changes in funding sources, as well as react to changes in market conditions that affect the ability to quickly liquidate assets with minimal loss. In addition, funds management practices should ensure that liquidity is not maintained at a high cost, or through undue reliance on funding sources that may not be available in times of financial stress or adverse changes in market conditions.

Liquidity is rated based upon, but not limited to, an assessment of the following evaluation factors:

- The adequacy of liquidity sources compared to present and future needs and the ability of the institution to meet liquidity needs without adversely affecting its operations or condition;
- The availability of assets readily convertible to cash without undue loss;
- Access to money markets and other sources of funding;
- The level of diversification of funding sources, both on- and off-balance sheet;
- The degree of reliance on short-term, volatile sources of funds, including borrowings and brokered deposits, to fund longer term assets;
- The trend and stability of deposits;
- The ability to securitize and sell certain pools of assets; and
- The capability of management to properly identify, measure, monitor, and control the institution's liquidity position, including the effectiveness of funds management strategies, liquidity policies, management information systems, and contingency funding plans.

Ratings

A rating of 1 indicates strong liquidity levels and well-developed funds management practices. The institution has reliable access to sufficient sources of funds on favorable terms to meet present and anticipated liquidity needs.

A rating of 2 indicates satisfactory liquidity levels and funds management practices. The institution has access to sufficient sources of funds on acceptable terms to meet present and anticipated liquidity needs. Modest weaknesses may be evident in funds management practices.

A rating of 3 indicates liquidity levels or funds management practices in need of improvement. Institutions rated 3 may lack ready access to funds on reasonable terms or may evidence significant weaknesses in funds management practices.

A rating of 4 indicates deficient liquidity levels or inadequate funds management practices. Institutions rated 4 may not have or be able to obtain a sufficient volume of funds on reasonable terms to meet liquidity needs.

A rating of 5 indicates liquidity levels or funds management practices so critically deficient that the continued viability of the institution is threatened. Institutions rated 5 require immediate external financial assistance to meet maturing obligations or other liquidity needs.

Sensitivity to Market Risk

The sensitivity to market risk component reflects the degree to which changes in interest rates, foreign exchange rates, commodity prices, or equity prices can adversely affect a financial institution's earnings or economic capital. When evaluating this component, consideration should be given to: management's ability to identify, measure, monitor, and control market risk; the institution's size; the nature and complexity of its activities; and the adequacy of its capital and earnings in relation to its level of market risk exposure.

For many institutions, the primary source of market risk arises from nontrading positions and their sensitivity to changes in interest rates. In some larger institutions, foreign operations can be a significant source of market risk. For some institutions, trading activities are a major source of market risk.

Market risk is rated based upon, but not limited to, an assessment of the following evaluation factors:

- The sensitivity of the financial institution's earnings or the economic value of its capital to adverse changes in interest rates, foreign exchange rates, commodity prices, or equity prices;
- The ability of management to identify, measure,

monitor, and control exposure to market risk given the institution's size, complexity, and risk profile;
- The nature and complexity of interest rate risk exposure arising from nontrading positions; and
- Where appropriate, the nature and complexity of market risk exposure arising from trading and foreign operations.

Ratings

A rating of 1 indicates that market risk sensitivity is well controlled and that there is minimal potential that the earnings performance or capital position will be adversely affected. Risk management practices are strong for the size, sophistication, and market risk accepted by the institution. The level of earnings and capital provide substantial support for the degree of market risk taken by the institution.

A rating of 2 indicates that market risk sensitivity is adequately controlled and that there is only moderate potential that the earnings performance or capital position will be adversely affected. Risk management practices are satisfactory for the size, sophistication, and market risk accepted by the institution. The level of earnings and capital provide adequate support for the degree of market risk taken by the institution.

A rating of 3 indicates that control of market risk sensitivity needs improvement or that there is significant potential that the earnings performance or capital position will be adversely affected. Risk management practices need to be improved given the size, sophistication, and level of market risk accepted by the institution. The level of earnings and capital may not adequately support the degree of market risk taken by the institution.

A rating of 4 indicates that control of market risk sensitivity is unacceptable or that there is high potential that the earnings performance or capital position will be adversely affected. Risk management practices are deficient for the size, sophistication, and level of market risk accepted by the institution. The level of earnings and capital provide inadequate support for the degree of market risk taken by the institution.

A rating of 5 indicates that control of market risk sensitivity is unacceptable or that the level of market risk taken by the institution is an imminent threat to its viability. Risk management practices are wholly inadequate for the size, sophistication, and level of market risk accepted by the institution.

INTRODUCTION

The examiner's evaluation of a bank's lending policies, credit administration, and the quality of the loan portfolio is among the most important aspects of the examination process. To a great extent, it is the quality of a bank's loan portfolio that determines the risk to depositors and to the FDIC's insurance fund. Conclusions regarding the bank's condition and the quality of its management are weighted heavily by the examiner's findings with regard to lending practices. Emphasis on review and appraisal of the loan portfolio and its administration by bank management during examinations recognizes, that loans comprise a major portion of most bank's assets; and, that it is the asset category which ordinarily presents the greatest credit risk and potential loss exposure to banks. Moreover, pressure for increased profitability, liquidity considerations, and a vastly more complex society have produced great innovations in credit instruments and approaches to lending. Loans have consequently become much more complex. Examiners therefore find it necessary to devote a large portion of time and attention to loan portfolio examination.

LOAN ADMINISTRATION

Lending Policies

The examiner's evaluation of the loan portfolio involves much more than merely appraising individual loans. Prudent management and administration of the overall loan account, including establishment of sound lending and collection policies, are of vital importance if the bank is to be continuously operated in an acceptable manner.

Lending policies should be clearly defined and set forth in such a manner as to provide effective supervision by the directors and senior officers. The board of directors of every bank has the legal responsibility to formulate lending policies and to supervise their implementation. Therefore examiners should encourage establishment and maintenance of written, up-to-date lending policies which have been approved by the board of directors. A lending policy should not be a static document, but must be reviewed periodically and revised in light of changing circumstances surrounding the borrowing needs of the bank's customers as well as changes that may occur within the bank itself. To a large extent, the economy of the community served by the bank dictates the composition of the loan portfolio. The widely divergent circumstances of regional economies and the considerable variance in characteristics of individual loans preclude establishment of standard or universal lending policies. There are, however, certain broad areas of consideration and concern that should be addressed in the lending policies of all banks regardless of size or location. These include the following, as minimums:

- General fields of lending in which the bank will engage and the kinds or types of loans within each general field;
- Lending authority of each loan officer;
- Lending authority of a loan or executive committee, if any;
- Responsibility of the board of directors in reviewing, ratifying, or approving loans;
- Guidelines under which unsecured loans will be granted;
- Guidelines for rates of interest and the terms of repayment for secured and unsecured loans;
- Limitations on the amount advanced in relation to the value of the collateral and the documentation required by the bank for each type of secured loan;
- Guidelines for obtaining and reviewing real estate appraisals as well as for ordering reappraisals, when needed;
- Maintenance and review of complete and current credit files on each borrower;
- Appropriate and adequate collection procedures including, but not limited to, actions to be taken against borrowers who fail to make timely payments;
- Limitations on the maximum volume of loans in relation to total assets;
- Limitations on the extension of credit through overdrafts;
- Description of the bank's normal trade area and circumstances under which the bank may extend credit outside of such area;
- Guidelines, which at a minimum, address the goals for portfolio mix and risk diversification and cover the bank's plans for monitoring and taking appropriate corrective action, if deemed necessary, on any concentrations that may exist;
- Guidelines addressing the bank's loan review and grading system ("Watch list");
- Guidelines addressing the bank's review of the Allowance for Loan and Lease Losses (ALLL); and
- Guidelines for adequate safeguards to minimize potential environmental liability.

The above are only as guidelines for areas that should be considered during the loan policy evaluation. Examiners should also encourage management to develop specific guidelines for each lending department or function. As with overall lending policies, it is not the FDIC's intent to suggest universal or standard loan policies for specific types of credit. The establishment of these policies is the

responsibility of each bank's Board and management. Therefore, the following discussion of basic principles applicable to various types of credit will not include or allude to acceptable ratios, levels, comparisons or terms. These matters should, however, be addressed in each bank's lending policy, and it will be the examiner's responsibility to determine whether the policies are realistic and being followed.

Much of the rest of this section of the Manual discusses areas that should be considered in the bank's lending policies. Guidelines for their consideration are discussed under the appropriate areas.

Loan Review Systems

The term *loan review system* refers to the responsibilities assigned to various areas such as credit underwriting, loan administration, problem loan workout, or other areas. Responsibilities may include assigning initial credit grades, ensuring grade changes are made when needed, or compiling information necessary to assess ALLL.

The complexity and scope of a loan review system will vary based upon an institution's size, type of operations, and management practices. Systems may include components that are independent of the lending function, or may place some reliance on loan officers. Although smaller institutions are not expected to maintain separate loan review departments, it is essential that all institutions have an effective loan review system. Regardless of its complexity, an effective loan review system is generally designed to address the following objectives:

- To promptly identify loans with well-defined credit weaknesses so that timely action can be taken to minimize credit loss;
- To provide essential information for determining the adequacy of the ALLL;
- To identify relevant trends affecting the collectibility of the loan portfolio and isolate potential problem areas;
- To evaluate the activities of lending personnel;
- To assess the adequacy of, and adherence to, loan policies and procedures, and to monitor compliance with relevant laws and regulations;
- To provide the board of directors and senior management with an objective assessment of the overall portfolio quality; and
- To provide management with information related to credit quality that can be used for financial and regulatory reporting purposes.

Credit Grading Systems

Accurate and timely credit grading is a primary component of an effective loan review system. Credit grading involves an assessment of credit quality, the identification of problem loans, and the assignment of risk ratings. An effective system provides information for use in establishing valuation allowances for specific credits and for the determination of an overall ALLL level.

Credit grading systems often place primary reliance on loan officers for identifying emerging credit problems. However, given the importance and subjective nature of credit grading, a loan officer's judgement regarding the assignment of a particular credit grade should generally be subject to review. Reviews may be performed by peers, superiors, loan committee(s), or other internal or external credit review specialists. Credit grading reviews performed by individuals independent of the lending function are preferred because they can often provide a more objective assessment of credit quality. A loan review system should, at a minimum, include the following:

- A formal credit grading system that can be reconciled with the framework used by Federal regulatory agencies;
- An identification of loans or loan pools that warrant special attention;
- A mechanism for reporting identified loans, and any corrective action taken, to senior management and the board of directors; and
- Documentation of an institution's credit loss experience for various components of the loan and lease portfolio.

Loan Review System Elements

Management should maintain a written loan review policy that is reviewed and approved at least annually by the board of directors. Policy guidelines should include a written description of the overall credit grading process, and establish responsibilities for the various loan review functions. The policy should generally address the following items:

- Qualifications of loan review personnel;
- Independence of loan review personnel;
- Frequency of reviews;
- Scope of reviews;
- Depth of reviews;
- Review of findings and follow-up; and
- Workpaper and report distribution.

Qualifications of Loan Review Personnel

Personnel involved in the loan review function should be qualified based on level of education, experience, and extent of formal training. They should be knowledgeable of both sound lending practices and their own institution's specific lending guidelines. In addition, they should be knowledgeable of pertinent laws and regulations that affect lending activities.

Loan Review Personnel Independence

Loan officers should be responsible for ongoing credit analysis and the prompt identification of emerging problems. Because of their frequent contact with borrowers, loan officers can usually identify potential problems before they become apparent to others. However, institutions should be careful to avoid over reliance upon loan officers. Management should ensure that, when feasible, all significant loans are reviewed by individuals that are not part of, or influenced by anyone associated with, the loan approval process.

Larger institutions typically establish separate loan review departments staffed by independent credit analysts. Cost and volume considerations may not justify such a system in smaller institutions. Often, members of senior management that are independent of the credit administration process, a committee of outside directors, or an outside loan review consultant fill this role. Regardless of the method used, loan review personnel should report their findings directly to the board of directors or a board committee.

Frequency of Reviews

The loan review function should provide feedback on the effectiveness of the lending process in identifying emerging problems. Reviews of significant credits should generally be performed annually, upon renewal, or more frequently when factors indicate a potential for deteriorating credit quality. A system of periodic reviews is particularly important to the ALLL determination process.

Scope of Reviews

Reviews should cover all loans that are considered significant. In addition to loans over a predetermined size, management will normally review smaller loans that present elevated risk characteristics such as credits that are delinquent, on nonaccrual status, restructured, previously classified, or designated as Special Mention. Additionally, management may wish to periodically review insider loans, recently renewed credits, or loans affected by common repayment factors. The percentage of the portfolio selected for review should provide reasonable assurance that all major credit risks have been identified.

Depth of Reviews

Loan reviews should analyze a number of important credit factors, including:

- Credit quality;
- Sufficiency of credit and collateral documentation;
- Proper lien perfection;
- Proper loan approval;
- Adherence to loan covenants;
- Compliance with internal policies and procedures, and applicable laws and regulations; and
- The accuracy and timeliness of credit grades assigned by loan officers.

Review of Findings and Follow-up

Loan review findings should be reviewed with appropriate loan officers, department managers, and members of senior management. Any existing or planned corrective action (including estimated timeframes) should be obtained for all noted deficiencies. All deficiencies that remain unresolved should be reported to senior management and the board of directors.

Workpaper and Report Distribution

A list of the loans reviewed, including the review date, and documentation supporting assigned ratings should be prepared. A report that summarizes the results of the review should be submitted to the board at least quarterly. Findings should address adherence to internal policies and procedures, and applicable laws and regulations, so that deficiencies can be remedied in a timely manner. A written response from management with corrective action outlined, should be provided in response to any substantive criticisms or recommendations.

Allowance for Loan and Lease Losses (ALLL)

Each bank must maintain an ALLL adequate to absorb estimated credit losses associated with the loan and lease portfolio, i.e., loans and leases that the bank has the intent and ability to hold for the foreseeable future or until maturity or payoff. Each bank should also maintain, as a separate liability account, an allowance sufficient to absorb estimated credit losses associated with off-balance sheet credit instruments such as off-balance sheet loan commitments, standby letters of credit, and guarantees. This separate allowance for credit losses on off-balance

sheet credit exposures should not be reported as part of the ALLL on a bank's balance sheet. Because loans and leases held for sale are carried on the balance sheet at the lower of cost or fair value, no ALLL should be established for such loans and leases.

The term "estimated credit losses" means an estimate of the current amount of the loan and lease portfolio (net of unearned income) that is not likely to be collected; that is, net chargeoffs that are likely to be realized for a loan, or pool of loans. The estimated credit losses should meet the criteria for accrual of a loss contingency (i.e., a provision to the ALLL) set forth in generally accepted accounting principles (GAAP). When available information confirms specific loans and leases, or portions thereof, to be uncollectible, these amounts should be promptly charged-off against the ALLL.

Estimated credit losses should reflect consideration of all significant factors that affect repayment as of the evaluation date. Estimated losses on loan pools should reflect historical net charge-off levels for similar loans, adjusted for changes in current conditions or other relevant factors. Calculation of historical charge-off rates can range from a simple average of net charge-offs over a relevant period, to more complex techniques, such as migration analysis.

Portions of the ALLL can be attributed to, or based upon the risks associated with, individual loans or groups of loans. However, the ALLL is available to absorb credit losses that arise from the entire portfolio. It is not segregated for any particular loan, or group of loans.

Responsibility of the Board and Management

It is the responsibility of the board of directors and management to maintain the ALLL at an adequate level. The allowance adequacy should be evaluated, and appropriate provisions made, at least quarterly. In carrying out their responsibilities, the board and management are expected to:

- Establish and maintain a loan review system that identifies, monitors, and addresses asset quality problems in a timely manner.
- Ensure the prompt charge-off of loans, or portions of loans, deemed uncollectible.
- Ensure that the process for determining an adequate allowance level is based on comprehensive, adequately documented, and consistently applied analysis.

For purposes of Reports of Condition and Income (Call Reports) and Thrift Financial Reports (TFR) an adequate ALLL should, after deduction of all assets classified loss, be no less than the sum of the following items:

- For loans and leases classified Substandard or Doubtful, whether analyzed and provided for individually or as part of pools, all estimated credit losses over the remaining effective lives of these loans.
- For loans and leases that are not classified, all estimated credit losses over the upcoming 12 months.
- Amounts for estimated losses from transfer risk on international loans.

Furthermore, management's analysis of an adequate reserve level should be conservative to reflect a margin for the imprecision inherent in most estimates of expected credit losses. This additional margin might be incorporated through amounts attributed to individual loans or groups of loans, or in an unallocated portion of the ALLL.

When determining an appropriate allowance, primary reliance should normally be placed on analysis of the various components of a portfolio, including all significant credits reviewed on an individual basis. Examiners should refer to Statement of Financial Accounting Standards No. (FAS) 114, *Accounting by Creditors for Impairment of a Loan*, for guidance in establishing reserves for impaired credits that are reviewed individually. When analyzing the adequacy of an allowance, portfolios should be segmented into as many components as practical. Each component should normally have similar characteristics, such as risk classification, past due status, type of loan, industry, or collateral. A depository institution may, for example, analyze the following components of its portfolio and provide for them in the ALLL:

- Significant credits reviewed on an individual basis;
- Loans and leases that are not reviewed individually, but which present elevated risk characteristics, such as delinquency, adverse classification, or Special Mention designation;
- Homogenous loans that are not reviewed individually, and do not present elevated risk characteristics; and
- All other loans and loan commitments that have not been considered or provided for elsewhere.

In addition to estimated credit losses, the losses that arise from the transfer risk associated with an institution's cross-border lending activities require special consideration. Over and above any minimum amount that is required by the Interagency Country Exposure Review Committee to be provided in the Allocated Transfer Reserve (or charged

to the ALLL), an institution must determine if their ALLL is adequate to absorb estimated losses from transfer risk associated with its cross-border lending exposure.

Factors to Consider in Estimating Credit Losses

Estimated credit losses should reflect consideration of all significant factors that affect the portfolio's collectibility as of the evaluation date. While historical loss experience provides a reasonable starting point, historical losses, or even recent trends in losses, are not by themselves, a sufficient basis to determine an adequate level. Management should also consider any factors that are likely to cause estimated losses to differ from historical loss experience, including, but not limited to:

- Changes in lending policies and procedures, including underwriting, collection, charge-off and recovery practices;
- Changes in local and national economic and business conditions;
- Changes in the volume or type of credit extended;
- Changes in the experience, ability, and depth of lending management;
- Changes in the volume and severity of past due, nonaccrual, restructured, or classified loans;
- Changes in the quality of an institution's loan review system or the degree of oversight by the board of directors; and,
- The existence of, or changes in the level of, any concentrations of credit.

Institutions are also encouraged to use ratio analysis as a supplemental check for evaluating the overall reasonableness of an ALLL. Ratio analysis can be useful in identifying trends in the relationship of the ALLL to classified and nonclassified credits, to past due and nonaccrual loans, to total loans and leases and binding commitments, and to historical chargeoff levels. However, while such comparisons can be helpful as a supplemental check of the reasonableness of management's assumptions and analysis, they are not, by themselves, a sufficient basis for determining an adequate ALLL level. Such comparisons do not eliminate the need for a comprehensive analysis of the loan and lease portfolio and the factors affecting its collectibility.

Examiner Responsibilities

Generally, following the quality assessment of the loan and lease portfolio, the loan review system, and the lending policies, examiners are responsible for assessing the adequacy of the ALLL. Examiners should consider all significant factors that affect the collectibility of the portfolio. Examination procedures for reviewing the adequacy of the ALLL are included in the Examination Documentation (ED) Modules..

In assessing the overall adequacy of an ALLL, it is important to recognize that the related process, methodology, and underlying assumptions require a substantial degree of judgement. Credit loss estimates will not be precise due to the wide range of factors that must be considered. Furthermore, the ability to estimate credit losses on specific loans and categories of loans improves over time. Therefore, examiners will generally accept management's estimates of credit losses in their assessment of the overall adequacy of the ALLL when management has:

- Maintained effective systems and controls for identifying, monitoring and addressing asset quality problems in a timely manner;
- Analyzed all significant factors that affect the collectibility of the portfolio; and
- Established an acceptable ALLL evaluation process that meets the objectives for an adequate ALLL.

If, after the completion of all aspects of the ALLL review described in this section, the examiner does not concur that the reported ALLL level is adequate, or the ALLL evaluation process is deficient, recommendations for correcting these problems, including any examiner concerns regarding an appropriate level for the ALLL, should be noted in the Report of Examination.

Regulatory Reporting of the ALLL

An ALLL established in accordance with the guidelines provided above should fall within a range of acceptable estimates. When an ALLL is deemed inadequate, management will be required to increase the provision for loan and lease loss expense sufficiently to restore the ALLL reported in its Call Report or TFR to an adequate level.

Accounting and Reporting Treatment

FAS 5, *Accounting for Contingencies*, provides the basic guidance for recognition of a loss contingency, such as the collectibility of loans (receivables), when it is probable that a loss has been incurred and the amount can be reasonably estimated. FAS 114, provides more specific guidance about the measurement and disclosure of impairment for certain types of loans. Specifically, FAS 114 applies to loans that are identified for evaluation on an individual basis. Loans are considered impaired when, based on current information and events, it is probable that the

creditor will be unable to collect all interest and principal payments due according to the contractual terms of the loan agreement.

For individually impaired loans, FAS 114 provides guidance on the acceptable methods to measure impairment. Specifically, FAS 114 states that when a loan is impaired, a creditor should measure impairment based on the present value of expected future principal and interest cash flows discounted at the loan's effective interest rate, except that as a practical expedient, a creditor may measure impairment based on a loan's observable market price or the fair value of collateral, if the loan is collateral dependent. When developing the estimate of expected future cash flows for a loan, an institution should consider all available information reflecting past events and current conditions, including the effect of existing environmental factors.

Large groups of smaller-balance homogenous loans that are collectively evaluated for impairment are *not* included in the scope of FAS 114. Such groups of loans may include, but are not limited to, credit card, residential mortgage, and consumer installment loans. FAS 5 addresses the accounting for impairment of these loans. Also, FAS 5 provides the accounting guidance for impairment of loans that are not identified for evaluation on an individual basis and loans that are individually evaluated but are not individually considered impaired.

Institutions should not layer their loan loss allowances. Layering is the inappropriate practice of recording in the ALLL more than one amount for the same probable loan loss. Layering can happen when an institution includes a loan in one segment, determines its best estimate of loss for that loan either individually or on a group basis (after taking into account all appropriate environmental factors, conditions, and events), and then includes the loan in another group, which receives an additional ALLL amount.

While different institutions may use different methods, there are certain common elements that should be included in any ALLL methodology. Generally, an institution's methodology should:

- Include a detailed loan portfolio analysis, performed regularly;
- Consider all loans (whether on an individual or group basis);
- Identify loans to be evaluated for impairment on an individual basis under FAS 114 and segment the remainder of the portfolio into groups of loans with similar risk characteristics for evaluation and analysis under FAS 5;
- Consider all known relevant internal and external factors that may affect loan collectibility;
- Be applied consistently but, when appropriate, be modified for new factors affecting collectibility;
- Consider the particular risks inherent in different kinds of lending;
- Consider current collateral values (less costs to sell), where applicable;
- Require that analyses, estimates, reviews and other ALLL methodology functions be performed by competent and well-trained personnel;
- Be based on current and reliable data;
- Be well-documented, in writing, with clear explanations of the supporting analyses and rationale; and,
- Include a systematic and logical method to consolidate the loss estimates and ensure the ALLL balance is recorded in accordance with GAAP.

A systematic methodology that is properly designed and implemented should result in an institution's best estimate of the ALLL. Accordingly, institutions should adjust their ALLL balance, either upward or downward, in each period for differences between the results of the systematic determination process and the unadjusted ALLL balance in the general ledger.

Examiners are encouraged, with the acknowledgement of management, to communicate with an institution's external auditors and request an explanation of their rationale and findings, when differences in judgment concerning the adequacy of the institution's ALLL exist. In case of controversy, the auditors may be reminded of the consensus reached by the Financial Accounting Standards Board's Emerging Issues Task Force (EITF) on Issue No. 85-44, Differences Between Loan Loss Allowances for GAAP and RAP. This issue deals with the situation where regulators mandated that institutions establish loan loss allowances under regulatory accounting principles (RAP) that may be in excess of amounts recorded by the institution in preparing its financial statement under"GAAP. The EITF was asked whether and under what circumstances this can occur. The consensus indicated that auditors should be particularly skeptical in the case of GAAP/RAP differences and must justify them based on the particular facts and circumstances.

Additional guidance on the establishment of loan review systems and an adequate ALLL is provided in the Interagency Statement of Policy on the ALLL dated December 21, 1993, and the Interagency Policy Statement on Allowance for Loan and Lease Losses Methodologies and Documentation for Banks and Savings Associations, dated June 29, 2001.

PORTFOLIO COMPOSITION

Commercial Loans

General

Loans to business enterprises for commercial or industrial purposes, whether proprietorships, partnerships or corporations, are commonly described as commercial loans. In asset distribution, commercial or business loans frequently comprise one of the most important assets of a bank. They may be secured or unsecured and have short or long-term maturities. Such loans include working capital advances, term loans and loans to individuals for business purposes.

Short-term working capital and seasonal loans provide temporary capital in excess of normal needs. They are used to finance seasonal requirements and are repaid at the end of the cycle by converting inventory and accounts receivable into cash. Such loans may be unsecured; however, many working capital loans are advanced with accounts receivable and/or inventory as collateral. Firms engaged in manufacturing, distribution, retailing and service-oriented businesses use short-term working capital loans.

Term business loans have assumed increasing importance. Such loans normally are granted for the purpose of acquiring capital assets, such as plant and equipment. Term loans may involve a greater risk than do short-term advances, because of the length of time the credit is outstanding. Because of the potential for greater risk, term loans are usually secured and generally require regular amortization. Loan agreements on such credits may contain restrictive covenants during the life of the loan. In some instances, term loans may be used as a means of liquidating, over a period of time, the accumulated and unpaid balance of credits originally advanced for seasonal needs. While such loans may reflect a borrower's past operational problems, they may well prove to be the most viable means of salvaging a problem situation and effecting orderly debt collection.

At a minimum, commercial lending policies should address acquisition of credit information, such as property, operating and cash flow statements; factors that might determine the need for collateral acquisition; acceptable collateral margins; perfecting liens on collateral; lending terms, and charge-offs.

Accounts Receivable Financing

Accounts receivable financing is a specialized area of commercial lending in which borrowers assign their interests in accounts receivable to the lender as collateral. Typical characteristics of accounts receivable borrowers are those businesses that are growing rapidly and need year-round financing in amounts too large to justify unsecured credit, those that are nonseasonal and need year-round financing because working capital and profits are insufficient to permit periodic cleanups, those whose working capital is inadequate for the volume of sales and type of operation, and those whose previous unsecured borrowings are no longer warranted because of various credit factors.

Several advantages of accounts receivable financing from the borrower's viewpoint are: it is an efficient way to finance an expanding operation because borrowing capacity expands as sales increase; it permits the borrower to take advantage of purchase discounts because the company receives immediate cash on its sales and is able to pay trade creditors on a satisfactory basis; it insures a revolving, expanding line of credit; and actual interest paid may be no more than that for a fixed amount unsecured loan.

Advantages from the bank's viewpoint are: it generates a relatively high yield loan, new business, and a depository relationship; permits continuing banking relationships with long-standing customers whose financial conditions no longer warrant unsecured credit; and minimizes potential loss when the loan is geared to a percentage of the accounts receivable collateral. Although accounts receivable loans are collateralized, it is important to analyze the borrower's financial statements. Even if the collateral is of good quality and in excess of the loan, the borrower must demonstrate financial progress. Full repayment through collateral liquidation is normally a solution of last resort.

Banks use two basic methods to make accounts receivable advances. First, blanket assignment, wherein the borrower periodically informs the bank of the amount of receivables outstanding on its books. Based on this information, the bank advances the agreed percentage of the outstanding receivables. The receivables are usually pledged on a non-notification basis and payments on receivables are made directly to the borrower who then remits them to the bank. The bank applies all or a portion of such funds to the borrower's loan. Second, ledgering the accounts, wherein the lender receives duplicate copies of the invoices together with the shipping documents and/or delivery receipts. Upon receipt of satisfactory information, the bank advances the agreed percentage of the outstanding receivables. The receivables are usually pledged on a notification basis. Under this method, the bank maintains complete control of the funds paid on all accounts pledged

by requiring the borrower's customer to remit directly to the bank.

In the area of accounts receivable financing, a bank's lending policy should address at least the acquisition of credit information such as property, operating and cash flow statements. It should also address maintenance of an accounts receivable loan agreement that establishes a percentage advance against acceptable receivables, a maximum dollar amount due from any one account debtor, financial strength of debtor accounts, insurance that "acceptable receivables" are defined in light of the turnover of receivables pledged, aging of accounts receivable, and concentrations of debtor accounts.

Leveraged Financing

The Federal bank regulatory agencies issued guidance on April 9, 2001 concerning sound risk management practices for institutions engaged in leveraged financing.

Leveraged financing is an important financing vehicle for mergers and acquisitions, business re-capitalizations and refinancings, equity buyouts, and business or product line build-outs and expansions. It is also used to increase shareholder returns and to monetize perceived "enterprise value" or other intangibles. A transaction is considered leveraged when the obligor's post-financing leverage as measured by debt-to-assets, debt-to-equity, cash flow-to-total debt, or other such standards unique to particular industries significantly exceeds industry norms for leverage. Leveraged borrowers typically have a diminished ability to adjust to unexpected events and changes in business conditions because of their higher ratio of total liabilities to capital. Consequently, leveraged financing can have significant implications for a banking organization's overall credit risk and presents unique challenges for its risk management systems.

Much of the leveraged financing activity ties into the merger and acquisition activity and the increasing values that were ascribed to firms as a result of a strong expansionary business climate. Leveraged financing transactions account for a sizeable portion of syndicated bank loans.

Institutions participate in leveraged financing on a number of levels. In addition to providing senior secured financing, they extend credit on a subordinated basis (mezzanine financing). Institutions and their affiliates also may take equity positions in leveraged companies with direct investments through affiliated securities firms, small business investment companies (SBICs), and venture capital companies or take equity interests via warrants and other equity "kickers" received as part of a financing package. Institutions also may invest in leveraged loan funds managed by investment banking companies or other third parties. Although leveraged financing is far more prevalent in large institutions, this type of lending can be found in institutions of all sizes.

The extent to which institutions should apply these practices will depend on the size and risk profile of their leveraged exposures relative to assets, earnings, and capital; and the nature of their leveraged financing activities (i.e., origination and distribution, participant, equity investor, etc.).

Risk Management Guidelines

Institutions substantively engaged in leveraged financing should adequately risk rate, track, and monitor these transactions and should maintain policies specifying conditions that would require a change in risk rating, accrual status, loss recognition, or reserves. In general, the risk management framework for leveraged finance is no different from that which should be applied to all lending activities. However, because of the potential higher level of risk, the degree of oversight should be more intensive.

Loan Policy

The loan policy should specifically address the institutions' leveraged lending activities by including:

- A definition of leveraged lending;
- An approval policy that requires sufficient senior management oversight;
- Pricing policies that ensure a prudent tradeoff between risk and return; and
- A requirement for action plans whenever cash flow, asset sale proceeds, or collateral values decline significantly from projections. Action plans should include remedial initiatives and triggers for rating downgrades, changes to accrual status, and loss recognition.

Underwriting Standards

Either the loan policy or separate underwriting guidelines should prescribe specific underwriting criteria for leveraged financing. The standards should avoid compromising sound banking practices in an effort to broaden market share or realize substantial fees. The policy should:

- Describe appropriate leveraged loan structures;

- Require reasonable amortization of term loans (i.e., allow a moderate time period to realize the benefit of synergies or augment revenues and institute meaningful repayment);
- Specify collateral policies including acceptable types of collateral, loan to value limits, collateral margins, and proper valuation methodologies;
- Establish covenant requirements, particularly minimum interest and fixed charge coverage and maximum leverage ratios;
- Describe how enterprise values and other intangible business values may be used; and
- Establish minimum documentation requirements for appraisals and valuations, including enterprise values and other intangibles.

Limits

Leveraged finance and other loan portfolios with above-average default probabilities tend to behave similarly during an economic or sectoral downturn. Consequently, institutions should take steps to avoid undue concentrations by setting limits consistent with their appetite for risk and their financial capacity. Institutions should ensure that they monitor and control as separate risk concentrations those loan segments most vulnerable to default. Institutions may wish to identify such concentrations by the leveraged characteristics of the borrower, by the institution's internal risk grade, by particular industry or other factors that the institution determines are correlated with an above-average default probability. In addition, sub-limits may be appropriate by collateral type, loan purpose, industry, secondary sources of repayment, and sponsor relationships. Institutions should also establish limits for the aggregate number of policy exceptions.

Credit Analysis

Effective management of leveraged financing risk is highly dependent on the quality of analysis during the approval process and after the loan is advanced. At a minimum, analysis of leveraged financing transactions should ensure that:

- Cash flow analyses do not rely on overly optimistic or unsubstantiated projections of sales, margins, and merger and acquisition synergies;
- Projections provide an adequate margin for unanticipated merger-related integration costs;
- Projections are stress tested for one or two downside scenarios;
- Transactions are reviewed quarterly to determine variance from financial plans, the risk implications thereof, and the accuracy of risk ratings and accrual status;
- Collateral valuations are derived with a proper degree of independence and consider potential value erosion;
- Collateral liquidation and asset sale estimates are conservative;
- Potential collateral shortfalls are identified and factored into risk rating and accrual decisions;
- Contingency plans anticipate changing conditions in debt or equity markets when exposures rely on refinancing or re-capitalization; and
- The borrower is adequately protected from interest rate and foreign exchange risk.

Enterprise Value

Enterprise value can be defined as the imputed value of a business. This valuation is often based on the anticipated or imputed sale value, market capitalization, or net worth of the borrower. The sale value is normally some multiple of sales or cash flow based on recent mergers or acquisitions of other firms in the borrower's industry.

This enterprise value is often relied upon in the underwriting of leveraged loans to evaluate the feasibility of a loan request, determine the debt reduction potential of planned asset sales, assess a borrower's ability to access the capital markets, and to provide a secondary source of repayment. Consideration of enterprise value is appropriate in the credit underwriting process. However, enterprise value and other intangible values, which can be difficult to determine, are frequently based on projections, and may be subject to considerable change. Consequently, reliance upon them as a secondary source of repayment can be problematic.

Because enterprise value is commonly derived from the cash flows of a business, it is closely correlated with the primary source of repayment. This interdependent relationship between primary and secondary repayment sources increases the risk in leveraged financing, especially when credit weaknesses develop. Events or changes in business conditions that negatively affect a company's cash flow will also negatively affect the value of the business, simultaneously eroding both the lender's primary and secondary source of repayment. Consequently, lenders that place undue reliance upon enterprise value as a secondary source of repayment or that utilize unrealistic assumptions to determine enterprise value are likely to approve unsound loans at origination or experience sizeable losses upon default.

It is essential that institutions establish sound valuation methodologies for enterprise value, apply appropriate

margins to protect against potential changes in value, and conduct ongoing stress testing and monitoring.

Rating Leveraged Finance Loans

Institutions need thoroughly articulated policies that specify requirements and criteria for risk rating transactions, identifying loan impairment, and recognizing losses. Such specificity is critical for maintaining the integrity of an institution's risk management system. Institutions should incorporate both the probability of a default and loss given a default in their ratings and rating systems to ensure that both the borrower and transaction risk are clearly evaluated. This is particularly germane to leverage finance transaction structures, which in many recent cases have resulted in large losses upon default.

In cases where a borrower's condition or future prospects have significantly weakened, leverage finance loans will likely merit a Substandard classification based on the existence of well-defined weaknesses. If such weaknesses appear to be of a lasting nature and it is probable that a lender will be unable to collect all principal and interest owed, the loan should be placed on non-accrual and will likely have a Doubtful component. Such loans should be reviewed for impairment in accordance with FAS 114. If the primary source of repayment is inadequate and a loan is considered collateral dependent, it is generally inappropriate to consider enterprise value unless the value is well supported. Well supported enterprise values may be evidenced by a binding purchase and sale agreement with a qualified third party or through valuations that fully consider the effect of the borrower's distressed circumstances and potential changes in business and market conditions. For such borrowers, where a portion of the loan is not protected by pledged assets or a well supported enterprise value, examiners will generally classify the unprotected portion of the loan Doubtful or Loss.

In addition, institutions need to ensure that the risks in leveraged lending activities are fully incorporated in the ALLL and capital adequacy analysis. For allowance purposes, leverage exposures should be taken into account either through analysis of the expected losses from the discrete portfolio or as part of an overall analysis of the portfolio utilizing the institution's internal risk grades or other factors. At the transaction level, exposures heavily reliant on enterprise value as a secondary source of repayment should be scrutinized to determine the need for and adequacy of specific allocations.

Problem Loan Management

For adversely rated borrowers and other high-risk borrowers who significantly depart from planned cash flows, asset sales, collateral values, or other important targets; institutions should formulate individual action plans with critical objectives and timeframes. Actions may include working with the borrower for an orderly resolution while preserving the institution's interests, sale in the secondary market, and liquidation. Regardless of the action, examiners and bankers need to ensure such credits are reviewed regularly for risk rating accuracy, accrual status, recognition of impairment through specific allocations, and charge-offs.

Portfolio Analysis

Higher risk credits, including leveraged finance transactions, require frequent monitoring by banking organizations. At least quarterly, management and the board of directors should receive comprehensive reports about the characteristics and trends in such exposures. These reports at a minimum should include:

- Total exposure and segment exposures, including subordinated debt and equity holdings, compared to established limits;
- Risk rating distribution and migration data;
- Portfolio performance, noncompliance with covenants, restructured loans, delinquencies, non-performing assets, and impaired loans; and
- Compliance with internal procedures and the aggregate level of exceptions to policy and underwriting standards.

Institutions with significant exposure levels to higher risk credits should consider additional reports covering:

- Collateral composition of the portfolio. For example, percentages supported by working assets, fixed assets, intangibles, blanket liens, and stock of borrower's operating subsidiaries;
- Unsecured or partially secured exposures, including potential collateral shortfalls caused by defaults that trigger *pari passu* collateral treatment for all lender classes;
- Absolute amount and percentage of the portfolio dependent on refinancing, recapitalization, asset sales, and enterprise value;
- Absolute amounts and percentages of scheduled and actual annual portfolio amortizations; and
- Secondary market pricing data and trading volume for loans in the portfolio.

Internal Controls

Institutions engaged in leveraged finance need to ensure their internal review function is appropriately staffed to provide timely, independent assessments of leveraged credits. Reviews should evaluate risk rating integrity, valuation methodologies, and the quality of risk management. Because of the volatile nature of these credits, portfolio reviews should be conducted on at least an annual basis. For many institutions, the risk characteristics of the leveraged portfolio, such as high reliance on enterprise value, concentrations, adverse risk rating trends or portfolio performance, will dictate more frequent reviews.

Distributions

Asset sales, participations, syndication, and other means of distribution are critical elements in the rapid growth of leveraged financing. Both lead and purchasing institutions to adopt formal policies and procedures addressing the distribution and acquisition of leveraged financing transactions. Policies should include:

- Procedures for defining, managing, and accounting for distribution fails;
- Identification of any sales made with recourse and procedures for fully reflecting the risk of any such sales.
- A process to ensure that purchasers are provided with timely, current financial information;
- A process to determine the portion of a transaction to be held for investment and the portion to be held for sale;
- Limits on the length of time transactions can be held in the held-for-sale account and policies for handling items that exceed those limits;
- Prompt recognition of losses in market value for loans classified as held-for-sale; and
- Procedural safeguards to prevent conflicts of interest for both bank and affiliated securities firms.

Participations Purchased

Institutions purchasing participations and assignments in leveraged finance must make a thorough, independent evaluation of the transaction and the risks involved before committing any funds. They should apply the same standards of prudence, credit assessment, approval criteria, and "in-house" limits that would be employed if the purchasing organization were originating the loan.

Process to Identify Potential Conflicts

Examiners should determine whether an institution's board of directors and management have established policies for leveraged finance that minimize the risks posed by potential legal issues and conflicts of interest.

Conflicts of Interest

When a banking company plays multiple roles in leveraged finance, the interests of different customers or the divisions of the institution may conflict. For example, a lender may be reluctant to employ an aggressive collection strategy with a problem borrower because of the potential impact on the value of the organization's equity interest. A lender may also be pressured to provide financial or other privileged client information that could benefit an affiliated equity investor. Institutions should develop appropriate policies to address potential conflicts of interest. Institutions should also track aggregate totals for borrowers and sponsors to which it has both a lending and equity relationship. Appropriate limits should be established for such relationships.

Securities Laws

Equity interests and certain debt instruments used in leveraged lending may constitute "securities" for the purposes of Federal securities laws. When securities are involved, institutions should ensure compliance with applicable securities law requirements, including disclosure and regulatory requirements. Institutions should also establish procedures to restrict the internal dissemination of material nonpublic information about leveraged finance transactions.

Compliance Function

The legal and regulatory issues raised by leveraged transactions are numerous and complex. To ensure that potential conflicts are avoided and laws and regulations are adhered to, an independent compliance function should review all leveraged financing activity.

Mezzanine Financing

Mezzanine financing represents those parts of a leveraged financing package that are neither equity nor senior debt. It usually is extended through subsidiaries of banks or nonbank subsidiaries of bank holding companies. Examiners should review policies for mezzanine financing to ensure that they generally include:

- Limits for both aggregate volume and individual transactions;
- Designated booking units;
- Credit approval and reporting processing;
- Management and other reporting requirements;
- An internal risk rating system and requirements for periodic reviews; and
- Procedures for legal review.

Allowance for Loan and Lease Losses

The potential impact of a bank's participation in leveraged financing should be carefully considered when reviewing the adequacy of the ALLL. The aggregate size and overall condition of the leveraged financing portfolio should be specifically addressed in any review of the overall ALLL adequacy. Examiners should review the bank's methodology for incorporating the special risks related to this financing in its determination of the adequacy of ALLL. Management's internal risk rating system is expected to include assessment of its equity and mezzanine financing portfolio in determining the need for valuation reserves.

Examination Risk Rating Guidance for Leveraged Financing

When evaluating individual borrowers, examiners should pay particular attention to:

- The overall performance and profitability of a borrower and its industry over time, including periods of economic or financial adversity;
- The history and stability of a borrower's market share, earnings, and cash flow, particularly over the most recent business cycle and last economic downturn; and
- The relationship between a borrowing company's projected cash flow and debt service requirements and the resulting margin of debt service coverage.

Cash Flow/Debt Service Coverage

Particular attention should be paid to the adequacy of the borrower's cash flow and the reasonableness of projections. Before entering into a leveraged financing transaction, bankers should conduct an independent, realistic assessment of the borrower's ability to achieve the projected cash flow under varying economic and interest rate scenarios. This assessment should take into account the potential effects of an economic downturn or other adverse business conditions on the borrower's cash flow and collateral values. Normally bankers and examiners should adversely rate a credit if material questions exist as to the borrower's ability to achieve the projected necessary cash flows, or if orderly repayment of the debt is in doubt. Credits with only minimal cash flow for debt service are usually subject to an adverse rating.

Enterprise Value

Many leveraged financing transactions rely on "enterprise value" as a secondary source of repayment. Most commonly, enterprise value is based on a "going concern" assumption and derived from some multiple of the expected income or cash flow of the firm. The methodology and assumptions underlying the valuation should be clearly disclosed, well supported, and understood by appropriate decision-makers and risk oversight units. Examiners should ensure that the valuation approach is appropriate for the company's industry and condition.

Enterprise value is often viewed as a secondary source of repayment and as such would be relied upon under stressful conditions. In such cases the assumptions used for key variables such as cash flow, earnings, and sale multiples should reflect those adverse conditions. These variables can have a high degree of uncertainty - sales and cash flow projections may not be achieved; comparable sales may not be available; changes can occur in a firm's competitive position, industry outlook, or the economic environment. Given these uncertainties, changes in the value of a firm's assets need to be tested under a range of stress scenarios, including business conditions more adverse than the base case scenario. Stress testing of enterprise values and their underlying assumptions should be conducted upon origination of the loan and periodically thereafter incorporating the actual performance of the borrower and any adjustments to projections. The bank should in all cases perform its own discounted cash flow analysis to validate "enterprise value" implied by proxy measures such as multiples of cash flow, earnings or sales.

Finally, it must be recognized that valuations derived with even the most rigorous valuation procedures are imprecise and may not be realized when needed by an institution. Therefore, institutions relying on enterprise value or illiquid and hard-to-value collateral must have lending policies that provide for appropriate loan-to-value ratios, discount rates and collateral margins.

Deal Sponsors

Deal sponsors can be an important source of financial support for a borrower that fails to achieve cash flow projections. However, support from this source should only be considered positively in a risk rating decision when the sponsor has a history of demonstrated support as well as the economic incentive, capacity, and stated intent to

continue to support the transaction. Even with capacity and a history of support, a sponsor's potential contributions should not mitigate criticism unless there is clear reason to believe it is in the best interests of the sponsor to continue that support or unless there is a formal guarantee.

Oil and/or Gas Reserve-Based Loans

These guidelines apply to oil and/or gas reserve-based loans that are considered collateral dependent and are devoid of repayment capacity from other tangible sources.

The initial step to assessing the credit worthiness of reserve-based loans is an analysis of the engineering function. Cash flow generated from the future sale of encumbered oil and/or gas reserves is the primary, and in most cases the only intended, source of repayment. Therefore, engineering data integrity which depicts future cash stream, is critical to the initial lending decision and equally important to an examiner in the assessment of credit quality. For evaluation purposes, an acceptable engineering report must be an independent, detailed analysis of the reserve prepared by a competent engineering group. The report must address three critical concerns: pricing; discount factors; and timing. In those cases where the engineering reports do not meet one or more of these criteria, the examiner may need to use other methods, e.g., recent cash flow histories, to determine the current collateral value.

The extent of examiner analysis is a matter of judgment, but comprehensive analysis of the credit should definitely take place if:

- The loan balance exceeds 65 percent of the discounted present worth of future net income (PWFNI) of proved developed producing properties (PDP), or the cash flow analysis indicates that the loan will not amortize over four to five years;
- The credit is not performing in accordance with terms or repayment of interest and/or principal; or
- The credit is identified by the bank as a "problem" credit.

After performing the analysis, the examiner must determine if classification is warranted. The following guidelines are to be applied in instances where the obligor is devoid of primary and secondary repayment capacity or other reliable means of repayment, with total support of the debt provided solely by the pledged collateral. First, 65 percent of discounted PWFNI should be classified Substandard. A lesser percentage or less severe criticism may be appropriate in cases where a reliable alternate means of repayment exists for a portion of the debt. The 65 percent percentage should be used when the discounted PWFNI is determined using historical production data. When less than 75 percent of the reserve estimate is determined using historical production data, or the discounted PWFNI is predicated on engineering estimates of the volume of oil/gas flow (volumetric and/or analogy-based engineering data), the collateral value assigned to Substandard should be reduced accordingly. The balance, but not more than 100 percent of discounted PWFNI of PDP reserves, should be classified Doubtful. Any remaining deficiency balance should be classified Loss.

In addition to PDP, many reserve-based credit collateral values will include items variously referred to as proved (or proven) developed non-producing reserves, shut-in reserves, behind-the-pipe reserves and proved undeveloped properties (PUP) as collateral. Due to the nature of these other reserves, there are no strict percentage guidelines for the proportion of the credit supported by this type of collateral that should remain as a bankable asset. However, only in very unusual situations would the proportion of collateral values for these other reserves assigned to a classification category approach values for PDP.

The examiner must ascertain the current status of each reserve and develop an appropriate collateral value. Examples could be reserves that are shut-in due to economic conditions versus reserves that are shut-in due to the absence of pipeline or transportation. PDP require careful evaluation before allowing any bankable collateral value.

Real Estate Loans

General

Real estate loans are part of the loan portfolios of almost all commercial banks. Real estate loans include credits advanced for the purchase of real property. However, the term may also encompass extensions granted for other purposes, but for which primary collateral protection is real property.

The degree of risk in a real estate loan depends primarily on the loan amount in relation to collateral value, the interest rate, and most importantly, the borrower's ability to repay in an orderly fashion. It is extremely important that a bank's real estate loan policy ensure that loans are granted with the reasonable probability the debtor will be able and willing to meet the payment terms. Placing undue reliance upon a property's appraised value in lieu of an adequate initial assessment of a debtor's repayment ability is a potentially dangerous mistake.

Historically, many banks have jeopardized their capital structure by granting ill-considered real estate mortgage loans. Apart from unusual, localized, adverse economic conditions which could not have been foreseen, resulting in a temporary or permanent decline in realty values, the principal errors made in granting real estate loans include inadequate regard to normal or even depressed realty values during periods when it is in great demand thus inflating the price structure, mortgage loan amortization, the maximum debt load and repayment capacity of the borrower, and failure to reasonably restrict mortgage loans on properties for which there is limited demand.

A principal indication of a troublesome real estate loan is an improper relationship between the amount of the loan, the potential sale price of the property, and the availability of a market. The potential sale price of a property may or may not be the same as its appraised value. The current potential sale price or liquidating value of the property is of primary importance and the appraised value is of secondary importance. There may be little or no current demand for the property at its appraised value and it may have to be disposed of at a sacrifice value.

Examiners must appraise not only individual mortgage loans, but also the overall mortgage lending and administration policies to ascertain the soundness of its mortgage loan operations as well as the liquidity contained in the account. The bank should establish policies that address the following factors: the maximum amount that may be loaned on a given property, in a given category, and on all real estate loans; the need for appraisals (professional judgments of the present and/or future value of the real property) and for amortization on certain loans.

Real Estate Lending Standards

Section 18(o) of the FDI Act requires the Federal banking agencies to adopt uniform regulations prescribing standards for loans secured by liens on real estate or made for the purpose of financing permanent improvements to real estate. For FDIC-supervised institutions, Part 365 of the FDIC Rules and Regulations requires each institution to adopt and maintain written real estate lending policies that are consistent with sound lending principles, appropriate for the size of the institution and the nature and scope of its operations. Within these general parameters, the regulation specifically requires an institution to establish policies that include:

- Portfolio diversification standards;
- Prudent underwriting standards including loan-to-value limits;
- Loan administration procedures;
- Documentation, approval and reporting requirements; and
- Procedures for monitoring real estate markets within the institution's lending area.

These policies also should reflect consideration of the Interagency Guidelines for Real Estate Lending Policies and must be reviewed and approved annually by the institution's board of directors.

The interagency guidelines, which are an appendix to Part 365, are intended to help institutions satisfy the regulatory requirements by outlining the general factors to consider when developing real estate lending standards. The guidelines suggest maximum supervisory loan-to-value (LTV) limits for various categories of real estate loans and explain how the agencies will monitor their use.

Institutions are expected to establish their own internal LTV limits consistent with their needs. These internal limits should not exceed the following recommended supervisory limits:

- 65 percent for raw land;
- 75 percent for land development;
- 80 percent for commercial, multi-family, and other non-residential construction;
- 85 percent for construction of a 1-to-4 family residence;
- 85 percent for improved property; and
- Owner-occupied 1-to-4 family home loans have no suggested supervisory LTV limits. However, for any such loan with an LTV ratio that equals or exceeds 90 percent at origination, an institution should require appropriate credit enhancement in the form of either mortgage insurance or readily marketable collateral.

Certain real estate loans are exempt from the supervisory LTV limits because of other factors that significantly reduce risk. These include loans guaranteed or insured by the Federal, State or local government as well as loans to be sold promptly in the secondary market without recourse. A complete list of excluded transactions is included in the guidelines.

Because there are a number of credit factors besides LTV limits that influence credit quality, loans that meet the supervisory LTV limits should not automatically be considered sound, nor should loans that exceed the supervisory LTV limits automatically be considered high risk. However, loans that exceed the supervisory LTV limit should be identified in the institution's records and the aggregate amount of these loans reported to the institution's

board of directors at least quarterly. The guidelines further State that the aggregate amount of loans in excess of the supervisory LTV limits should not exceed the institution's total capital. Moreover, within that aggregate limit, the total loans for all commercial, agricultural and multi-family residential properties (excluding 1-to-4 family home loans) should not exceed 30 percent of total capital.

Institutions should develop policies that are clear, concise, consistent with sound real estate lending practices, and meet their needs. Policies should not be so complex that they place excessive paperwork burden on the institution. Therefore, when evaluating compliance with Part 365, examiners should carefully consider the following:

- The size and financial condition of the institution;
- The nature and scope of the institution's real estate lending activities;
- The quality of management and internal controls;
- The size and expertise of the lending and administrative staff; and
- Market conditions.

It is important to distinguish between the regulation and the interagency guidelines. While the guidelines are included as an appendix to the regulation, they are not part of the regulation. Therefore, when an apparent violation of Part 365 is identified, it should be listed in the Report of Examination in the same manner as other apparent violations. Conversely, when an examiner determines that an institution is not in conformance with the guidelines and the deficiency is a safety and soundness concern, an appropriate comment should be included in the examination report; however, the deficiency would not be a violation of the regulation.

Examination procedures for various real estate loan categories are included in the ED Modules.

Commercial Real Estate Loans

These loans comprise a major portion of many banks' loan portfolios. When problems exist in the real estate markets that the bank is servicing, it is necessary for examiners to devote additional time to the review and evaluation of loans in these markets.

There are several warning signs that real estate markets or projects are experiencing problems that may result in real estate values decreasing from original appraisals or projections. Adverse economic developments and/or an overbuilt market can cause real estate projects and loans to become troubled. Signs of troubled real estate markets or projects include, but are not limited to:

- Rent concessions or sales discounts resulting in cash flow below the level projected in the original appraisal.
- Changes in concept or plan: for example, a condominium project converting to an apartment project.
- Construction delays resulting in cost overruns which may require renegotiation of loan terms.
- Slow leasing or lack of sustained sales activity and/or increasing cancellations which may result in protracted repayment or default.
- Lack of any sound feasibility study or analysis.
- Periodic construction draws which exceed the amount needed to cover construction costs and related overhead expenses.
- Identified problem credits, past due and non-accrual loans.

Real Estate Construction Loans

A construction loan is used to construct a particular project within a specified period of time and should be controlled by supervised disbursement of a predetermined sum of money. It is generally secured by a first mortgage or deed of trust and backed by a purchase or takeout agreement from a financially responsible permanent lender. Construction loans are vulnerable to a wide variety of risks. The major risk arises from the necessity to complete projects within specified cost and time limits. The risk inherent in construction lending can be limited by establishing policies which specify type and extent of bank involvement. Such policies should define procedures for controlling disbursements and collateral margins and assuring timely completion of the projects and repayment of the bank's loans.

Before a construction loan agreement is entered into, the bank should investigate the character, expertise, and financial standing of all related parties. Documentation files should include background information concerning reputation, work and credit experience, and financial statements. Such documentation should indicate that the developer, contractor, and subcontractors have demonstrated the capacity to successfully complete the type of project to be undertaken. The appraisal techniques used to value a proposed construction project are essentially the same as those used for other types of real estate. The bank should realize that appraised collateral values are not usually met until funds are advanced and improvements made.

The bank, the builder and the property owner should join in a written building loan agreement that specifies the

performance of each party during the entire course of construction. Loan funds are generally disbursed based upon either a standard payment plan or a progress payment plan. The standard payment plan is normally used for residential and smaller commercial construction loans and utilizes a preestablished schedule for fixed payments at the end of each specified stage of construction. The progress payment plan is normally used for larger, more complex, building projects. The plan is generally based upon monthly disbursements totaling 90 percent of the value with 10 percent held back until the project is completed.

Although many credits advanced for real estate acquisition, development or construction are properly considered loans secured by real estate, other such credits are, in economic substance, "investments in real estate ventures" and categorization of the asset as "other real estate owned" may be appropriate. A key feature of these transactions is that the bank as lender plans to share in the expected residual profit from the ultimate sale or other use of the development. These profit sharing arrangements may take the form of equity kickers, unusually high interest rates, a percentage of the gross rents or net cash flow generated by the project, or some other form of profit participation over and above a reasonable amount for interest and related loan fees. These extensions of credit may also include such other characteristics as nonrecourse debt, 100 percent financing of the development cost (including origination fees, interest payments, construction costs, and even profit draws by the developer), and lack of any substantive financial support from the borrower or other guarantors. Acquisition, Development, and Construction (ADC) arrangements that are in substance real estate investments of the bank should be reported accordingly.

On the other hand, if the bank will receive less than a majority of the expected residual profit, the ADC loan may be analogous to an interest in a joint real estate venture, which would be, considered an investment in unconsolidated subsidiaries and associated companies.

The following are the basic types of construction lending:

- Unsecured Front Money **-** Unsecured front money loans are working capital advances to a borrower who may be engaged in a new and unproven venture. Many bankers believe that unsecured front money lending is not prudent unless the bank is involved in the latter stages of construction financing. A builder planning to start a project before construction funding is obtained often uses front money loans. The funds may be used to acquire or develop a building site, eliminate title impediments, pay architect or standby fees, and/or meet minimum working capital requirements established by construction lenders. Repayment often comes from the first draw against construction financing. Unsecured front money loans used for a developer's equity investment in a project or to cover initial costs overruns are symptomatic of an undercapitalized, inexperienced or inept builder.

- Land Development Loans **-** Land development loans are generally secured purchase or development loans or unsecured advances to investors and speculators. Secured purchase or development loans are usually a form of financing involving the purchase of land and lot development in anticipation of further construction or sale of the property. A land development loan should be predicated upon a proper title search and/or mortgage insurance. The loan amount should be based on appraisals on an "as is" and "as completed" basis. Projections should be accompanied by a study explaining the effect of property improvements on the market value of the land. There should be a sufficient spread between the amount of the development loan and the estimated market value to allow for unforeseen expenses. The repayment program should be structured to follow the sales or development program. In the case of an unsecured land development loan to investors or speculators, bank management should analyze the borrower's financial statements for sources of repayment other than the expected return on the property development.

- Commercial Construction Loans **-** Loans financing commercial construction projects are usually collateralized, and such collateral is generally identical to that for commercial real estate loans. Supporting documentation should include a recorded mortgage or deed of trust, title insurance policy and/or title opinions, appropriate liability insurance and other coverages, land appraisals, and evidence that taxes have been paid to date. Additional documents relating to commercial construction loans include loan agreements, takeout commitments, tri-party (buy/sell) agreements, completion or corporate bonds, and inspection or progress reports.

- Residential Construction Loans **-** Residential construction loans may be made on a speculative basis or as prearranged permanent financing. Smaller banks often engage in this type of financing and the aggregate total of individual construction loans may equal a significant portion of their capital funds. Prudence dictates that permanent financing be assured in advance because the cost of such financing can have a substantial affect on sales. Proposals to finance speculative housing should be evaluated in accordance with predetermined policy standards compatible with

the institution's size, technical competence of its management, and housing needs of its service area. The prospective borrower's reputation, experience, and financial condition should be reviewed. The finished project's marketability in favorable and unfavorable market conditions should be realistically considered.

In addition to normal safeguards such as a recorded first mortgage, acceptable appraisal, construction agreement, draws based on progress payment plans and inspection reports, a bank dealing with speculative contractors should institute control procedures tailored to the individual circumstances. A predetermined limit on the number of unsold units to be financed at any one time should be included in the loan agreement to avoid overextending the contractor's capacity. Loans on larger residential construction projects are usually negotiated with prearranged permanent financing. Documentation of tract loans frequently includes a master note allocated for the entire project and a master deed of trust or mortgage covering all land involved in the project. Payment of the loan will depend largely upon the sale of the finished homes. As each sale is completed, the bank makes a partial release of the property covered by its master collateral document. In addition to making periodic inspections during the course of construction, periodic progress reports (summary of inventory lists maintained for each tract project) should be made on the entire project. The inventory list should show each lot number, type of structure, release price, sales price, and loan balance.

The exposure in any type of construction lending is that the full value of the collateral does not exist at the time the loan is granted. The bank must ensure funds are used properly to complete construction or development of the property serving as collateral. If default occurs, the bank must be in a position to either complete the project or to salvage its construction advances. The various mechanic's and materialmen's liens, tax liens, and other judgments that arise in such cases are distressing to even the most seasoned lender. Every precaution should be taken by the lender to minimize any outside attack on the collateral. The construction lender may not be in the preferred position indicated by documents in the file. Laws of some states favor the subcontractors (materialmen's liens, etc.), although those of other states protect the construction lender to the point of first default, provided certain legal requirements have been met. Depending on the type and size of project being funded, construction lending can be a complex and fairly high-risk venture. For this reason, bank management should ensure that it has enacted policies and retained sufficiently trained personnel before engaging in this type of lending.

Home Equity Loans

A home equity loan is a loan secured by the equity in a borrower's residence. It is generally structured in one of two ways. First, it can be structured as a traditional second mortgage loan, wherein the borrower obtains the funds for the full amount of the loan immediately and repays the debt with a fixed repayment schedule. Second, the home equity borrowing can be structured as a line of credit, with a check, credit card, or other access to the line over its life.

The home equity line of credit has evolved into the dominant form of home equity lending. This credit instrument generally offers variable interest rates and flexible repayment terms. Additional characteristics of this product line include relatively low interest rates as compared to other forms of consumer credit, absorption by some banks of certain fees (origination, title search, appraisal, recordation cost, etc.) associated with establishing a real estate-related loan. The changes imposed by the Tax Reform Act of 1986 relating to the income tax deductibility of interest paid on consumer debt led to the increased popularity of home equity lines of credit.

Home equity lending is widely considered to be a low-risk lending activity. These loans are secured by housing assets, the value of which historically has performed well. Nevertheless, the possibility exists that local housing values or household purchasing power may decline, stimulating abandonment of the property and default on the debt secured by the housing. Certain features of home equity loans make them particularly susceptible to such risks. First, while the variable rate feature of the debt reduces the interest rate risk of the lender, the variable payment size exposes the borrower to greater cash flow risks than would a fixed-rate loan, everything else being equal. This, in turn, exposes the lender to greater credit risk. Another risk is introduced by the very nature of the home equity loan. Such loans are generally secured by a junior lien. Thus, there is less effective equity protection than in a first lien instrument. Consequently, a decline in the value of the underlying housing results in a much greater than proportional decline in the coverage of a home equity loan. This added leverage makes them correspondingly riskier than first mortgages.

Banks that make these kinds of loans should adopt specific policies and procedures for dealing with this product line. Management should have expertise in both mortgage lending as well as open-end credit procedures. Another major concern is that borrowers will become overextended and the bank will have to initiate foreclosure proceedings.

Therefore, underwriting standards should emphasize the borrower's ability to service the line from cash flow rather than the sale of the collateral, especially if the home equity line is written on a variable rate basis. If the bank has offered a low introductory interest rate, repayment capacity should be analyzed at the rate that could be in effect at the conclusion of the initial term.

Other important considerations include acceptable loan-to-value and debt-to-income ratios, and proper credit and collateral documentation, including adequate appraisals and written evidence of prior lien status. Another significant risk concerns the continued lien priority for subsequent advances under a home equity line of credit. State law governs the status of these subsequent advances. It is also important that the bank's program include periodic reviews of the borrower's financial condition and continuing ability to repay the indebtedness.

The variation in contract characteristics of home equity debt affects the liquidity of this form of lending. For debt to be easily pooled and sold in the secondary market, it needs to be fairly consistent in its credit and interest rate characteristics. The complexity of the collateral structures, coupled with the uncertain maturity of revolving credit, makes home equity loans considerably less liquid than straight first lien, fixed maturity mortgage loans.

While home equity lending is considered to be fairly low-risk, subprime home equity loans and lending programs exist at some banks. These programs have a higher level of risk than traditional home equity lending programs. Individual or pooled home equity loans that have subprime characteristics should be analyzed using the guidance provided in the subprime section of this Manual.

Agricultural Loans

Introduction

Agricultural loans are an important component of many community bank loan portfolios. Agricultural banks represent a material segment of commercial banks and constitute an important portion of the group of banks over which the FDIC has the primary Federal supervisory responsibility.

Agricultural loans are used to fund the production of crops, fruits, vegetables, and livestock, or to fund the purchase or refinance of capital assets such as farmland, machinery and equipment, breeder livestock, and farm real estate improvements (for example, facilities for the storage, housing, and handling of grain or livestock). The production of crops and livestock is especially vulnerable to two risk factors that are largely outside the control of individual lenders and borrowers: commodity prices and weather conditions. While examiners must be alert to, and critical of, operational and managerial weaknesses in agricultural lending activities, they must also recognize when the bank is taking reasonable steps to deal with these external risk factors. Accordingly, loan restructurings or extended repayment terms, or other constructive steps to deal with financial difficulties faced by agricultural borrowers because of adverse weather or commodity conditions, will not be criticized if done in a prudent manner and with proper risk controls and management oversight. Examiners should recognize these constructive steps and fairly portray them in oral and written communications regarding examination findings. This does not imply, however, that analytical or classification standards should be compromised. Rather, it means that the bank’s response to these challenges will be considered in supervisory decisions.

Agricultural Loan Types and Maturities

Production or Operating Loans **-** Short-term (one year or less) credits to finance seed, fuel, chemicals, land and machinery rent, labor, and other costs associated with the production of crops. Family living expenses are also sometimes funded, at least in part, with these loans. The primary repayment source is sale of the crops at the end of the production season when the harvest is completed.

<u>Feeder Livestock Loans</u> **-** Short-term loans for the purchase of, or production expenses associated with, cattle, hogs, sheep, poultry or other livestock. When the animals attain market weight and are sold for slaughter, the proceeds are used to repay the debt.

<u>Breeder Stock Loans</u> **-** Intermediate-term credits (generally three to five years) used to fund the acquisition of breeding stock such as beef cows, sows, sheep, dairy cows, and poultry. The primary repayment source is the proceeds from the sale of the offspring of these stock animals, or their milk or egg production.

<u>Machinery and Equipment Loans</u> **-** Intermediate-term loans for the purchase of a wide array of equipment used in the production and handling of crops and livestock. Cash flow from farm earnings is the primary repayment source. Loans for grain handling and storage facilities are also sometimes included in this category, especially if the facilities are not permanently affixed to real estate.

<u>Farm Real Estate Acquisition Loans</u> **-** Long-term credits for the purchase of farm real estate, with cash flow from earnings representing the primary repayment source. Significant, permanent improvements to the real estate,

such as for livestock housing or grain storage, may also be included within this group.

Carryover Loans - This term is used to describe two types of agricultural credit. The first is production or feeder livestock loans that are unable to be paid at their initial, short-term maturity, and which are rescheduled into an intermediate or long-term amortization. This situation arises when weather conditions cause lower crop yields, commodity prices are lower than anticipated, production costs are higher than expected, or other factors result in a shortfall in available funds for debt repayment. The second type of carryover loan refers to already-existing term debt whose repayment terms or maturities need to be rescheduled because of inadequate cash flow to meet existing repayment requirements. This need for restructuring can arise from the same factors that lead to carryover production or feeder livestock loans. Carryover loans are generally restructured on an intermediate or long-term amortization, depending upon the type of collateral provided, the borrower's debt service capacity from ongoing operations, the debtor's overall financial condition and trends, or other variables. The restructuring may also be accompanied by acquisition of Federal guarantees through the farm credit system to lessen risk to the bank.

Agricultural Loan Underwriting Guidelines

Many underwriting standards applicable to commercial loans also apply to agricultural credits. The discussion of those shared standards is therefore not repeated. Some items, however, are especially pertinent to agricultural credit and therefore warrant emphasis.

Financial and Other Credit Information - As with any type of lending, sufficient information must be available so that the bank can make informed credit decisions. Basic information includes balance sheets, income statements, cash flow projections, loan officer file comments, and collateral inspections, verifications, and valuations. Generally, financial information should be updated not less than annually (loan officer files should be updated as needed and document all significant meetings and events). Credit information should be analyzed by management so that appropriate and timely actions are taken, as necessary, to administer the credit.

Banks should be given some reasonable flexibility as to the level of sophistication or comprehensiveness of the aforementioned financial information, and the frequency with which it is obtained, depending upon such factors as the credit size, the type of loans involved, the financial strength and trends of the borrower, and the economic, climatic or other external conditions which may affect loan repayment. It may therefore be inappropriate for the examiner to insist that all agricultural borrowers be supported with the full complement of balance sheets, income statements, and other data discussed above, regardless of the nature and amount of the credit or the debtor's financial strength and payment record. Nonetheless, while recognizing some leeway is appropriate, most of the bank's agricultural credit lines, and all of its larger or more significant ones, should be sufficiently supported by the financial information mentioned.

Cash Flow Analysis - History clearly demonstrated that significant problems can develop when banks fail to pay sufficient attention to cash flow adequacy in underwriting agricultural loans. While collateral coverage is important, the primary repayment source for intermediate and long-term agricultural loans is not collateral but cash flow from ordinary operations. This principle should be incorporated into the bank's agricultural lending policies and implemented in its actual practices. Cash flow analysis is therefore an important aspect of the examiner's review of agricultural loans. Assumptions in cash flow projections should be reasonable and consider not only current conditions but also the historical performance of the farming operation.

Collateral Support - Whether a loan or line of credit warrants unsecured versus secured status in order to be prudent and sound is a matter the examiner has to determine based on the facts of the specific case. The decision should generally consider such elements as the borrower's overall financial strength and trends, profitability, financial leverage, degree of liquidity in asset holdings, managerial and financial expertise, and amount and type of credit. Nonetheless, as a general rule, intermediate and long-term agricultural credit is typically secured, and many times production and feeder livestock advances will also be collateralized. Often the security takes the form of an all-inclusive lien on farm personal property, such as growing crops, machinery and equipment, livestock, and harvested grain. A lien on real estate is customarily taken if the loan was granted for the purchase of the property, or if the borrower's debts are being restructured because of debt servicing problems. In some cases, the bank may perfect a lien on real estate as an abundance of caution.

Examiner review of agricultural related collateral valuations varies depending on the type of security involved. Real estate collateral should be reviewed using normal procedures and utilizing Part 323 of the FDIC's Rules and Regulations as needed. Feeder livestock and grain are highly liquid commodities that are bought and sold daily in active, well-established markets. Their prices are widely reported in the daily media; so, obtaining their

market values is generally easy. The market for breeder livestock may be somewhat less liquid than feeder livestock or grain, but values are nonetheless reasonably well known and reported through local or regional media or auction houses. If such information on breeding livestock is unavailable or is considered unreliable, slaughter prices may be used as an alternative (these slaughter prices comprise "liquidation" rather than "going concern" values). The extent of use and level of maintenance received significantly affect machinery and equipment values. Determining collateral values can therefore be very difficult as maintenance and usage levels vary significantly. Nonetheless, values for certain pre-owned machinery and equipment, especially tractors, combines, and other harvesting or crop tillage equipment, are published in specialized guides and are based on prices paid at farm equipment dealerships or auctions. These used machinery guides may be used as a reasonableness check on the valuations presented on financial statements or in management's internal collateral analyses.

Prudent agricultural loan underwriting also includes systems and procedures to ensure that the bank has a valid note receivable from the borrower and an enforceable security interest in the collateral, should judicial collection measures be necessary. Among other things, such systems and procedures will confirm that promissory notes, loan agreements, collateral assignments, and lien perfection documents are signed by the appropriate parties and are filed, as needed, with the appropriate State, county, and/or municipal authorities. Flaws in the legal enforceability of loan instruments or collateral documents will generally be unable to be corrected if they are discovered only when the credit is distressed and the borrower relationship strained.

Structuring **-** Orderly liquidation of agricultural debt, based on an appropriate repayment schedule and a clear understanding by the borrower of repayment expectations, helps prevent collection problems from developing. Amortization periods for term indebtedness should correlate with the useful economic life of the underlying collateral and with the operation's debt service capacity. A too-lengthy amortization period can leave the bank under secured in the latter part of the life of the loan, when the borrower's financial circumstances may have changed. A too-rapid amortization, on the other hand, can impose an undue burden on the cash flow capacity of the farming operation and thus lead to loan default or disruption of other legitimate financing needs of the enterprise. It is also generally preferable that separate loans or lines of credit be established for each loan purpose category financed by the institution.

Administration of Agricultural Loans

Two aspects of prudent loan administration deserve emphasis: collateral control and renewal practices for production loans.

Collateral Control **-** Production and feeder livestock loans are sometimes referred to as self liquidating because sale of the crops after harvest, and of the livestock when they reach maturity, provides a ready repayment source for these credits. These self-liquidating benefits may be lost, however, if the bank does not monitor and exercise sufficient control over the disposition of the proceeds from the sale. In agricultural lending, collateral control is mainly accomplished by periodic on-site inspections and verifications of the security pledged, with the results of those inspections documented, and by implementing procedures to ensure sales proceeds are applied to the associated debt before those proceeds are released for other purposes. The recommended frequency of collateral inspections varies depending upon such things as the nature of the farming operation, the overall credit soundness, and the turnover rate of grain and livestock inventories.

Renewal of Production Loans **-** After completion of the harvest, some farm borrowers may wish to defer repayment of some or all of that season's production loans, in anticipation of higher market prices at a later point (typically, crop prices are lower at harvest time when the supply is greater). Such delayed crop marketing will generally require production loan extensions or renewals.. In these situations, the bank must strike an appropriate balance of, on the one hand, not interfering with the debtor's legitimate managerial decisions and marketing plans while, at the same time, taking prudent steps to ensure its production loans are adequately protected and repaid on an appropriate basis. Examiners should generally not take exception to reasonable renewals or extensions of production loans when the following factors are favorably resolved:

- The borrower has sufficient financial strength to absorb market price fluctuations. Leverage and liquidity in the balance sheet, financial statement trends, profitability of the operation, and past repayment performance are relevant indices.
- The borrower has sufficient financial capacity to support both old and new production loans. That is, in a few months subsequent to harvest, the farmer will typically be incurring additional production debt for the upcoming crop season.
- The bank has adequately satisfied itself of the amount and condition of grain in inventory, so that the renewed or extended production loans are adequately supported. Generally, this means that a current inspection report will be available.

Classification Guidelines for Agricultural Credit

When determining the level of risk in a specific lending relationship, the relevant factual circumstances must be reviewed in total. This means, among other things, that when an agricultural loan's primary repayment source is jeopardized or unavailable, adverse classification is **not** automatic. Rather, such factors as the borrower's historical performance and financial strength, overall financial condition and trends, the value of any collateral, and other sources of repayment must be considered. In considering whether a given agricultural loan or line of credit should be adversely classified, collateral margin is an important, though not necessarily the determinative, factor. If that margin is so overwhelming as to remove all reasonable prospect of the bank sustaining some loss, it is generally inappropriate to adversely classify such a loan. Note, however, that if there is reasonable uncertainty as to the value of that security, because of an illiquid market or other reasons, that uncertainty can, when taken in conjunction with other weaknesses, justify an adverse classification of the credit, or, at minimum, may mean that the margin in the collateral needs to be greater to offset this uncertainty. Moreover, when assessing the adequacy of the collateral margin, it must be remembered that deteriorating financial trends will, if not arrested, typically result in a shrinking of that margin. Such deterioration can also reduce the amount of cash available for debt service needs.

That portion of an agricultural loan(s) or line of credit, which is secured by grain, feeder livestock, and/or breeder livestock, will generally be withheld from adverse classification. The basis for this approach is that grain and livestock are highly marketable and provide good protection from credit loss. However, that high marketability also poses potential risks that must be recognized and controlled. The following conditions must therefore be met in order for this provision to apply:

- The bank must take reasonable steps to verify the existence and value of the grain and livestock. This generally means that on-site inspections must be made and documented. Although the circumstances of each case must be taken into account, the general policy is that, for the classification exclusion to apply, inspections should have been performed not more than 90 days prior to the examination start date for feeder livestock and grain collateral, and not more than six months prior to the examination start date for breeder stock collateral. Copies of invoices or bills of sale are acceptable substitutes for inspection reports prepared by bank management, in the case of loans for the purchase of livestock.
- Loans secured by grain warehouse receipts are generally excluded from adverse classification, up to the market value of the grain represented by the receipts.
- The amount of credit to be given for the livestock or grain collateral should be based on the daily, published, market value as of the examination start date, less marketing and transportation costs, feed and veterinary expenses (to the extent determinable), and, if material in amount, the accrued interest associated with the loan(s). Current market values for breeder stock may be derived from local or regional newspapers, area auction barns, or other sources considered reliable. If such valuations for breeding livestock cannot be obtained, the animals' slaughter values may be used.
- The bank must have satisfactory practices for controlling sales proceeds when the borrower sells livestock and feed and grain.
- The bank must have a properly perfected and enforceable security interest in the assets in question.

Examiners should exercise great caution in granting the grain and livestock exclusion from adverse classification in those instances where the borrower is highly leveraged, or where the debtor's basic operational viability is seriously in question, or if the bank is in an under-secured position. The issue of control over proceeds becomes extremely critical in such highly distressed credit situations. If the livestock and grain exclusion from adverse classification is not given in a particular case, bank management should be informed of the reasons why.

With the above principles, requirements, and standards in mind, the general guidelines for determining adverse classification for agricultural loans are as follows, listed by loan type.

<u>Feeder Livestock Loans</u> **-** The self-liquidating nature of these credits means that they are generally not subject to adverse classification. However, declines in livestock prices, increases in production costs, or other unanticipated developments may result in the revenues from the sale of the livestock not being adequate to fully repay the loans. Adverse classification may then be appropriate, depending upon the support of secondary repayment sources and collateral, and the borrower's overall financial condition and trends.

<u>Production Loans</u> **-** These loans are generally not subject to adverse classification if the debtor has good liquidity and/or significant fixed asset equities, or if the cash flow information suggests that current year's operations should be sufficient to repay the advances. The examiner should

also take into account any governmental support programs or Federal crop insurance benefits from which the borrower may benefit. If cash flow from ongoing operations appears insufficient to repay production loans, adverse classification may be in order, depending upon the secondary repayment sources and collateral, and the borrower's overall financial condition and trends.

Breeder Stock Loans - These loans are generally not adversely classified if they are adequately secured by the livestock and if the term debt payments are being met through the sale of offspring (or milk and eggs in the case of dairy and poultry operations). If one or both of these conditions is not met, adverse classification may be in order, depending upon the support of secondary repayment sources and collateral, and the borrower's overall financial condition and trends.

Machinery and Equipment Loans - Loans for the acquisition of machinery and equipment will generally not be subject to adverse classification if they are adequately secured, structured on an appropriate amortization program (see above), and are paying as agreed. Farm machinery and equipment is often the second largest class of agricultural collateral, hence its existence, general state of repair, and valuation should be verified and documented during the bank's periodic on-site inspections of the borrower's operation. Funding for the payments on machinery and equipment loans sometimes comes, at least in part, from other loans provided by the bank, especially production loans. When this is the case, the question arises whether the payments are truly being "made as agreed." For examination purposes, such loans will be considered to be paying as agreed if cash flow projections, payment history, or other available information, suggests there is sufficient capacity to fully repay the production loans when they mature at the end of the current production cycle. If the machinery and equipment loan is not adequately secured, or if the payments are not being made as agreed, adverse classification should be considered.

Carryover Debt - Carryover debt results from the debtor's inability to generate sufficient cash flow to service the obligation as it is currently structured. It therefore tends to contain a greater degree of credit risk and must receive close analysis by the examiner. When carryover debt arises, the bank should determine the basic viability of the borrower's operation, so that an informed decision can be made on whether debt restructuring is appropriate. It will thus be useful for bank management to know how the carryover debt came about: Did it result from the obligor's financial, operational or other managerial weaknesses; from inappropriate credit administration on the bank's part, such as over lending or improper debt structuring; from external events such as adverse weather conditions that affected crop yields; or from other causes? In many instances, it will be in the long-term best interests of both the bank and the debtor to restructure the obligations. The restructured obligation should generally be rescheduled on a term basis and require clearly identified collateral, amortization period, and payment amounts. The amortization period may be intermediate or long term depending upon the useful economic life of the available collateral, and on realistic projections of the operation's payment capacity.

There are no hard and fast rules on whether carryover debt should be adversely classified, but the decision should generally consider the following: borrower's overall financial condition and trends, especially financial leverage (often measured in farm debtors with the debt-to-assets ratio); profitability levels, trends, and prospects; historical repayment performance; the amount of carryover debt relative to the operation's size; realistic projections of debt service capacity; and the support provided by secondary collateral. Accordingly, carryover loans to borrowers who are moderately to highly leveraged, who have a history of weak or no profitability and barely sufficient cash flow projections, as well as an adequate but slim collateral margin, will generally be adversely classified, at least until it is demonstrated through actual repayment performance that there is adequate capacity to service the rescheduled obligation. The classification severity will normally depend upon the collateral position. At the other extreme are cases where the customer remains fundamentally healthy financially, generates good profitability and ample cash flow, and who provides a comfortable margin in the security pledged. Carryover loans to this group of borrowers will not ordinarily be adversely classified.

Installment Loans

An installment loan portfolio is usually comprised of a large number of small loans scheduled to be amortized over a specific period. Most installment loans are made directly for consumer purchases, but business loans granted for the purchase of heavy equipment or industrial vehicles may also be included. In addition, the department may grant indirect loans for the purchase of consumer goods.

The examiner's emphasis in reviewing the installment loan department should be on the overall procedures, policies and credit qualities. The goal should not be limited to identifying current portfolio problems, but should include potential future problems that may result from ineffective policies, unfavorable trends, potentially dangerous concentrations, or nonadherence to established policies. At a minimum, the direct installment lending policies should address the following factors: loan applications and credit

checks; terms in relation to collateral; collateral margins; perfection of liens; extensions, renewals and rewrites; delinquency notification and follow-up; and charge-offs and collections. For indirect lending, the policy additionally should address direct payment to the bank versus payment to the dealer, acquisition of dealer financial information, possible upper limits for any one dealer's paper, other standards governing acceptance of dealer paper, and dealer reserves and charge-backs.

Direct Lease Financing

Leasing is a recognized form of term debt financing for fixed assets. While leases differ from loans in some respects, they are similar from a credit viewpoint because the basic considerations are cash flow, repayment capacity, credit history, management and projections of future operations. Additional considerations for a lease transaction are the property type and its marketability in the event of default or lease termination. Those latter considerations do not radically alter the manner in which an examiner evaluates collateral for a lease. The assumption is that the lessee/borrower will generate sufficient funds to liquidate the lease/debt. Sale of leased property/collateral remains a secondary repayment source and, except for the estimated residual value at the expiration of the lease, will not, in most cases, become a factor in liquidating the advance. When the bank is requested to purchase property of significant value for lease, it may issue a commitment to lease, describing the property, indicating cost, and generally outlining the lease terms. After all terms in the lease transaction are resolved by negotiation between the bank and its customer, an order is usually written requesting the bank to purchase the property. Upon receipt of that order, the bank purchases the property requested and arranges for delivery and, if necessary, installation. A lease contract is drawn incorporating all the points covered in the commitment letter, as well as the rights of the bank and lessee in the event of default. The lease contract is generally signed simultaneously with the signing of the order to purchase and the agreement to lease.

The types of assets that may be leased are numerous, and the accounting for direct leasing is a complex subject which is discussed in detail in FAS 13. Familiarity with FAS 13 is a prerequisite for the management of any bank engaging in or planning to engage in direct lease financing. The following terms are commonly encountered in direct lease financing:

- Net Lease, one in which the bank is not directly or indirectly obligated to assume the expenses of maintaining the equipment. This restriction does not prohibit the bank from paying delivery and set up charges on the property.
- Full Payout Lease, one for which the bank expects to realize both the return of its full investment and the cost of financing the property over the term of the lease. This payout can come from rentals, estimated tax benefits, and estimated residual value of the property.
- Leveraged Lease, in which the bank as lessor purchases and becomes the equipment owner by providing a relatively small percentage (20-40%) of the capital needed. Balance of the funds is borrowed by the lessor from long-term lenders who hold a first lien on the equipment and assignments of the lease and lease rental payments. This specialized and complex form of leasing is prompted mainly by a desire on the part of the lessor to shelter income from taxation. Creditworthiness of the lessee is paramount and the general rule is a bank should not enter into a leveraged lease transaction with any party to whom it would not normally extend unsecured credit.
- Rentals, which include only those payments reasonably anticipated by the bank at the time the lease is executed.

Bank management should carefully evaluate all lease variables, including the estimate of the residual value. Banks may be able to realize unwarranted lease income in the early years of a contract by manipulating the lease variables. In addition, a bank can offer the lessee a lower payment by assuming an artificially high residual value during the initial structuring of the lease. But this technique may present the bank with serious long-term problems because of the reliance on speculative or nonexistent residual values.

Often, lease contracts contain an option permitting the lessee to continue use of the property at the end of the original term, working capital restrictions and other restrictions or requirements similar to debt agreements and lease termination penalties. Each lease is an individual contract written to fulfill the lessee's needs. Consequently, there may be many variations of each of the above provisions. However, the underlying factors remain the same: there is a definite contractual understanding of the positive right to use the property for a specific period of time, and required payments are irrevocable.

Examination procedures for reviewing direct lease financing activities are included in the ED Modules in the Loan References section.

Floor Plan Loans

Floor plan (wholesale) lending is a form of retail goods inventory financing in which each loan advance is made against a specific piece of collateral. As each piece of collateral is sold by the dealer, the loan advance against that piece of collateral is repaid. Items commonly subject to floor plan debt are automobiles, home appliances, furniture, television and stereophonic equipment, boats, mobile homes and other types of merchandise usually sold under a sales finance contract. Drafting agreements are a relatively common approach utilized in conjunction with floor plan financing. Under this arrangement, the bank establishes a line of credit for the borrower and authorizes the good's manufacturer to draw drafts on the bank in payment for goods shipped. The bank agrees to honor these drafts, assuming proper documentation (such as invoices, manufacturer's statement of origin, etc.) is provided. The method facilitates inventory purchases by, in effect, guaranteeing payment to the manufacturer for merchandise supplied. Floor plan loans involve all the basic risks inherent in any form of inventory financing. However, because of the banker's inability to exercise full control over the floored items, the exposure to loss may be greater than in other similar types of financing. Most dealers have minimal capital bases relative to debt. As a result, close and frequent review of the dealer's financial information is necessary. As with all inventory financing, collateral value is of prime importance. Control requires the bank to determine the collateral value at the time the loan is placed on the books, frequently inspect the collateral to determine its condition, and impose a curtailment requirement sufficient to keep collateral value in line with loan balances.

Handling procedures for floor plan lines will vary greatly depending on bank size and location, dealer size and the type of merchandise being financed. In many cases, the term "trust receipt" is used to describe the debt instrument existing between the bank and the dealer. Trust receipts may result from drafting agreements between a bank and a manufacturer for the benefit of a dealer. In other instances, the dealer may order inventory, bring titles or invoices to the bank, and then obtain a loan secured or to be secured by the inventory. Some banks may use master debt instruments, and others may use a trust receipt or note for each piece of inventory. The method of perfecting a security interest also varies from state to state. The important point is that a bank enacts realistic handling policies and ensures that its collateral position is properly protected.

Examination procedures and examiner considerations for reviewing floor plan lending activities are included in the ED Modules in the Loan References section.

Check Credit and Credit Card Loans

Check credit is defined as the granting of unsecured revolving lines of credit to individuals or businesses. Check credit services are provided by the overdraft system, cash reserve system, and special draft system. The most common is the overdraft system. In that method, a transfer is made from a preestablished line of credit to a customer's demand deposit account when a check which would cause an overdraft position is presented. Transfers normally are made in stated increments, up to the maximum line of credit approved by the bank, and the customer is notified that the funds have been transferred. In a cash reserve system, customers must request that the bank transfer funds from their preestablished line of credit to their demand deposit account before negotiating a check against them. A special draft system involves the customer negotiating a special check drawn directly against a preestablished line of credit. In that method, demand deposit accounts are not affected. In all three systems, the bank periodically provides its check credit customers with a statement of account activity. Required minimum payments are computed as a fraction of the balance of the account on the cycle date and may be made by automatic charges to a demand deposit account.

Most bank credit card plans are similar. The bank solicits retail merchants, service organizations and others who agree to accept a credit card in lieu of cash for sales or services rendered. The parties also agree to a discount percentage of each sales draft and a maximum dollar amount per transaction. Amounts exceeding that limit require prior approval by the bank. Merchants also may be assessed a fee for imprinters or promotional materials. The merchant deposits the bank credit card sales draft at the bank and receives immediate credit for the discounted amount. The bank assumes the credit risk and charges the nonrecourse sales draft to the individual customer's credit card account. Monthly statements are rendered by the bank to the customer who may elect to remit the entire amount, generally without service charge, or pay in monthly installments, with an additional percentage charged on the outstanding balance each month. A cardholder also may obtain cash advances from the bank or dispensing machines. Those advances accrue interest from the transaction date. A bank may be involved in a credit card plan in three ways:

- Agent Bank, which receives credit card applications from customers and sales drafts from merchants and forwards such documents to banks described below, and is accountable for such documents during the process of receiving and forwarding.

- Sublicensee Bank, which maintains accountability for credit card loans and merchant's accounts; may maintain its own center for processing payments and drafts; and may maintain facilities for embossing credit cards.
- Licensee Bank, which is the same as sublicensee bank, but in addition may perform transaction processing and credit card embossing services for sublicensee banks, and also acts as a regional or national clearinghouse for sublicensee banks.

Check credit and credit card loan policies should address procedures for careful screening of account applicants; establishment of internal controls to prevent interception of cards before delivery, merchants from obtaining control of cards, or customers from making fraudulent use of lost or stolen card; frequent review of delinquent accounts, accounts where payments are made by drawing on reserves, and accounts with steady usage; delinquency notification procedures; guidelines for realistic charge-offs; removal of accounts from delinquent status (curing) through performance not requiring a catch-up of delinquent principal; and provisions that preclude automatic reissuance of expired cards to obligors with charged-off balances or an otherwise unsatisfactory credit history with the bank.

Examination procedures for reviewing these activities are included in the ED Modules. Also, the FDIC has separate manuals on Credit Card Specialty Bank Examination Guidelines and Credit Card Securitization Activities.

Credit Card-related Merchant Activities

Merchant credit card activities basically involve the acceptance of credit card sales drafts for clearing by a financial institution (clearing institution). For the clearing institution, these activities are generally characterized by thin profit margins amidst high transactional and sales volumes. Typically, a merchant's customer will charge an item on a credit card, and the clearing institution will give credit to the merchant's account. Should the customer dispute a charge transaction, the clearing institution is obligated to honor the customer's legitimate request to reverse the transaction. The Clearing Institution must then seek reimbursement from the merchant. Problems arise when the merchant is not creditworthy and is unable, or unwilling, to reimburse the clearing institution. In these instances, the clearing institution will incur a loss. Examiners should review for the existence of any such contingent liabilities.

In order to avoid losses and to ensure the safe and profitable operation of a clearing institution's credit card activities, the merchants with whom it contracts for clearing services should be financially sound and honestly operated. To this end, safe and sound merchant credit card activities should include clear and detailed acceptance standards for merchants. These standards include the following:

- A clearing institution should scrutinize prospective merchants with the same care and diligence that it uses in evaluating prospective borrowers.
- Financial institutions engaging in credit card clearing operations must closely monitor their merchants. Controls should be in place to ensure that early warning signs are recognized so that problem merchants can be removed from a clearing institution's program promptly to minimize loss exposure.
- In cases of merchants clearing large dollar volumes, a clearing institution should establish an account administration program that, at a minimum, incorporates periodic reviews of the merchants' financial statements and business activities.
- A clearing institution should establish an internal periodic reporting system of merchant account activities regardless of the amount or number of transactions cleared, and these reports should be reviewed for irregularities so that the Clearing Institution alerts itself quickly to problematic merchant activity.
- Clearing institutions should follow the guidelines that are established by the card issuing networks.

Another possible problem with merchant activities involves clearing institutions that sometimes engage the services of agents, such as an independent sales organization (ISO). ISOs solicit merchants' credit card transactions for a clearing institution. In some cases, the ISOs actually contract with merchants on behalf of clearing institutions. Some of these contracts are entered into by the ISOs without the review and approval of the clearing institutions. At times, clearing institutions unfortunately rely too much on the ISOs to oversee account activity. In some cases, clearing institutions have permitted ISOs to contract with disreputable merchants. Because of the poor condition of the merchant, or ISO, or both, these clearing institutions can ultimately incur heavy losses.

A financial institution with credit card clearing activities should develop its own internal controls and procedures to ensure sound agent selection standards before engaging an ISO. ISOs that seek to be compensated solely on the basis of the volume of signed-up merchants should be carefully scrutinized. A clearing institution should adequately supervise the ISO's activities, just as the institution should supervise any third party engaged to perform services for any aspect of the institution's operations. Also, it should

reserve the right to ratify or reject any merchant contract that is initiated by an ISO.

Examination procedures for reviewing credit card related merchant activities are included in the Examination Documentation Modules in the Supplemental Modules Section and in the Credit Card Specialty Bank Examination Guidelines.

OTHER CREDIT ISSUES

Appraisals

Appraisals are professional judgments of the market value of real property. Three basic valuation approaches are used by professional appraisers in estimating the market value of real property; the cost approach, the market data or direct sales comparison approach, and the income approach. The principles governing the three approaches are widely known in the appraisal field and are referenced in parallel regulations issued by each of the Federal bank and thrift regulatory agencies. When evaluating collateral, the three valuation approaches are not equally appropriate.

- **Cost Approach -** In this approach, the appraiser estimates the reproduction cost of the building and improvements, deducts estimated depreciation, and adds the value of the land. The cost approach is particularly helpful when reviewing draws on construction loans. However, as the property increases in age, both reproduction cost and depreciation become more difficult to estimate. Except for special purpose facilities, the cost approach is usually inappropriate in a troubled real estate market because construction costs for a new facility normally exceed the market value of existing comparable properties.
- **Market Data or Direct Sales Comparison Approach -** This approach examines the price of similar properties that have sold recently in the local market, estimating the value of the subject property based on the comparable properties' selling prices. It is very important that the characteristics of the observed transactions be similar in terms of market location, financing terms, property condition and use, timing, and transaction costs. The market approach generally is used in valuing owner-occupied residential property because comparable sales data is typically available. When adequate sales data is available, an analyst generally will give the most weight to this type of estimate. Often, however, the available sales data for commercial properties is not sufficient to justify a conclusion.
- **The Income Approach -** The economic value of an income-producing property is the discounted value of the future net operating income stream, including any "reversion" value of property when sold. If competitive markets are working perfectly, the observed sales price should be equal to this value. For unique properties or in depressed markets, value based on a comparable sales approach may be either unavailable or distorted. In such cases, the income approach is usually the appropriate method for valuing the property. The income approach converts all expected future net operating income into present value terms. When market conditions are stable and no unusual patterns of future rents and occupancy rates are expected, the direct capitalization method is often used to estimate the present value of future income streams. For troubled properties, however, the more explicit discounted cash flow (net present value) method is more typically utilized for analytical purposes. In the rent method, a time frame for achieving a "stabilized", or normal, occupancy and rent level is projected. Each year's net operating income during that period is discounted to arrive at present value of expected future cash flows. The property's anticipated sales value at the end of the period until stabilization (its terminal or reversion value) is then estimated. The reversion value represents the capitalization of all future income streams of the property after the projected occupancy level is achieved. The terminal or reversion value is then discounted to its present value and added to the discounted income stream to arrive at the total present market value of the property.

Valuation of Troubled Income-Producing Properties

When an income property is experiencing financial difficulties due to general market conditions or due to its own characteristics, data on comparable property sales is often difficult to obtain. Troubled properties may be hard to market, and normal financing arrangements may not be available. Moreover, forced and liquidation sales can dominate market activity. When the use of comparables is not feasible (which is often the case for commercial properties), the net present value of the most reasonable expectation of the property's income-producing capacity - not just in today's market but over time - offers the most appropriate method of valuation in the supervisory process.

Estimates of the property's value should be based upon reasonable and supportable projections of the determinants of future net operating income: rents (or sales), expenses, and rates of occupancy. The primary considerations for these projections include historical levels and trends, the current market performance achieved by the subject and

similar properties, and economically feasible and defensible projections of future demand and supply conditions. If current market activity is dominated by a limited number of transactions or liquidation sales, high capitalization and discount rates implied by such transactions should not be used. Rather, analysts should use rates that reflect market conditions that are neither highly speculative nor depressed.

Appraisal Regulation

Title XI of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 requires that appraisals prepared by certified or licensed appraisers be obtained in support of real estate lending and mandates that the Federal financial institutions regulatory agencies adopt regulations regarding the preparation and use of appraisals in certain real estate related transactions by financial institutions under their jurisdiction. In addition, Title XI created the Appraisal Subcommittee (Subcommittee) of the Federal Financial Institutions Examination Council (FFIEC) to provide oversight of the real estate appraisal process as it relates to federally related real estate transactions. The Subcommittee is composed of six members, each of whom is designated by the head of their respective agencies. Each of the five financial institution regulatory agencies which comprise the FFIEC and the U.S. Department of Housing and Urban Development are represented on Subcommittee. A responsibility of the Subcommittee is to monitor the state certification and licensing of appraisers. It has the authority to disapprove a state appraiser regulatory program, thereby disqualifying the state's licensed and certified appraisers from conducting appraisals for federally related transactions. The Subcommittee gets its funding by charging state certified and licensed appraisers an annual registration fee. The fee income is used to cover Subcommittee administrative expenses and to provide grants to the Appraisal Foundation.

Formed in 1987, the Appraisal Foundation was established as a private not for profit corporation bringing together interested parties within the appraisal industry, as well as users of appraiser services, to promote professional standards within the appraisal industry. The Foundation sponsors two independent boards referred to in Title XI, The Appraiser Qualifications Board (AQB) and The Appraisal Standards Board (ASB). Title XI specifies that the minimum standards for state appraiser certification are to be the criteria for certification issued by the AQB. Title XI does not set specific criteria for the licensed classification. These are individually determined by each state. Additionally, Title XI requires that the appraisal standards prescribed by the Federal agencies, at a minimum, must be the appraisal standards promulgated by the ASB. The ASB has issued The Uniform Standards of Professional Appraisal Practice (USPAP) which set the appraisal industry standards for conducting an appraisal of real estate. To the appraisal industry, USPAP is analogous to generally accepted accounting principles for the accounting profession.

In conformance with Title XI, Part 323 of the FDIC regulations identifies which real estate related transactions require an appraisal by a certified or licensed appraiser and establishes minimum standards for performing appraisals. Substantially similar regulations have been adopted by each of the Federal financial institutions regulatory agencies.

Real estate-related transactions include real estate loans, mortgage-backed securities, bank premises, real estate investments, and other real estate owned. All real estate-related transactions by FDIC-insured institutions not specifically exempt are, by definition, "federally related transactions" subject to the requirements of the regulation. Exempt real estate-related transactions include:

- The transaction value is $250,000 or less;
- A lien on real estate has been taken as collateral in an abundance of caution;
- The transaction is not secured by real estate;
- A lien on real estate has been taken for purposes other than the real estate’s value;
- The transaction is a business loan that: (i) has a transaction value of $1 million or less; and (ii) is not dependent on the sale of, or rental income derived from, real estate as the primary source of repayment;
- A lease of real estate is entered into, unless the lease is the economic equivalent of a purchase or sale of the leased real estate;
- The transaction involves an existing extension of credit at the lending institution, provided that: (i) There has been no obvious and material change in the market conditions or physical aspects of the property that threatens the adequacy of the institution’s real estate collateral protection after the transaction, even with the advancement of new monies; or (ii) There is no advancement of new monies, other than funds necessary to cover reasonable closing costs;
- The transaction involves the purchase, sale, investment in, exchange of, or extension of credit secured by, a loan or interest in a loan, pooled loans, or interests in real property, including mortgage-backed securities, and each loan or interest in a loan, pooled loan, or real property interest met FDIC regulatory requirements for appraisals at the time of origination;

- The transaction is wholly or partially insured or guaranteed by a United States government agency or United States government sponsored agency;
- The transaction either; (i) Qualifies for sale to a United States government agency or United States government sponsored agency; or (ii) Involves a residential real estate transaction in which the appraisal conforms to the Federal National Mortgage Association or Federal Home Loan Mortgage Corporation appraisal standards applicable to that category of real estate;
- The regulated institution is acting in a fiduciary capacity and is not required to obtain an appraisal under other law; or
- The FDIC determines that the services of an appraiser are not necessary in order to protect Federal financial and public policy interests in real estate-related financial transaction or to protect the safety and soundness of the institution.

Section 323.4 establishes minimum standards for all appraisals in connection with federally related transactions. Appraisals performed in conformance with the regulation must conform to the requirements of the USPAP and certain other listed standards. The applicable sections of USPAP are the Preamble (ethics and competency), Standard 1 (appraisal techniques), Standard 2 (report content), and Standard 3 (review procedures). USPAP Standards 4 through 10 concerning appraisal services and appraising personal property do not apply to federally related transactions.

An appraisal satisfies the regulation if it is performed in accordance with all of its provisions and it is still current and meaningful. In other words, a new appraisal does not necessarily have to be done every time there is a transaction, provided the institution has an acceptable process in place to review existing appraisals.

Adherence to the appraisal regulation and appraisal guidelines should be part of the examiner's overall review of the lending function. An institution's written appraisal program should contain specific administrative review procedures that provide some evidence, such as a staff member's signature on an appraisal checklist that indicates the appraisal was reviewed and that all standards were met. In addition, the regulation requires that the appraisal contain the appraiser's certification that it was prepared in conformance with USPAP. When analyzing individual transactions, examiners should review appraisal reports to determine the institution's conformity to its own internal appraisal policies and for compliance with the regulation. Examiners may need to conduct a more detailed review if the appraisal does not have sufficient information, does not explain assumptions, is not logical, or has other major deficiencies that cast doubt as to the validity of its opinion of value. Examination procedures regarding appraisal reviews are included in the Examination Documentation Modules.

Loans in a pool such as an investment in mortgage- backed securities or collateralized mortgage obligations should have some documented assurance that each loan in the pool has an appraisal in accordance with the regulation. Appropriate evidence could include an issuer's certification of compliance.

All apparent violations of Part 323 should be listed in the examination report in the usual manner. Significant systemic failures to meet standards and procedures could call for formal corrective measures.

Interagency Appraisal and Evaluation Guidelines

These Interagency Appraisal and Evaluation Guidelines dated October 27, 1994 address supervisory matters relating to real estate-related financial transactions and provide guidance to examining personnel and federally regulated institutions about prudent appraisal and evaluation policies, procedures, practices, and standards. The guidelines were reiterated and clarified in a Statement issued by the regulatory agencies on October 27, 2003.

An institution's real estate appraisal and evaluation policies and procedures will be reviewed as part of the examination of the institution's overall real estate-related activities. An institution's policies and procedures should be incorporated into an effective appraisal and evaluation program. Examiners will consider the institution's size and the nature of its real estate-related activities when assessing the appropriateness of its program.

When analyzing individual transactions, examiners should review an appraisal or evaluation to determine whether the methods, assumptions, and findings are reasonable and in compliance with the agencies' appraisal regulations, policies, supervisory guidelines, and internal policies. Examiners also will review the steps taken by an institution to ensure that the individuals who perform its appraisals and evaluations are qualified and are not subject to conflicts of interest. Institutions that fail to maintain a sound appraisal or evaluation program or to comply with the agencies' appraisal regulations, policies, or these supervisory guidelines will be cited in examination reports and may be criticized for unsafe and unsound banking practices. Deficiencies will require corrective action.

Appraisal and Evaluation Program **-** An institution's board of directors is responsible for reviewing and adopting

policies and procedures that establish an effective real estate appraisal and evaluation program. The program should:

- Establish selection criteria and procedures to evaluate and monitor the ongoing performance of individuals who perform appraisals or evaluations;
- Provide for the independence of the person performing appraisals or evaluations;
- Identify the appropriate appraisal for various lending transactions;
- Establish criteria for contents of an evaluation;
- Provide for the receipt of the appraisal or evaluation report in a timely manner to facilitate the underwriting decision;
- Assess the validity of existing appraisals or evaluations to support subsequent transactions;
- Establish criteria for obtaining appraisals or evaluations for transactions that are otherwise exempt from the agencies' appraisal regulations; and
- Establish internal controls that promote compliance with these program standards.

<u>Selection of Individuals Who May Perform Appraisals and Evaluations</u> **-** An institution's program should establish criteria to select, evaluate, and monitor the performance of the individual(s) who performs a real estate appraisal or evaluation. The criteria should ensure that:

- The institution's selection process is non-preferential and unbiased;
- The individual selected possesses the requisite education, expertise and competence to complete the assignment;
- The individual selected is capable of rendering an unbiased opinion; and
- The individual selected is independent and has no direct or indirect interest, financial or otherwise, in the property or the transaction.

Under the agencies' appraisal regulations, the appraiser must be selected and engaged directly by the institution or its agent. The appraiser's client is the institution, not the borrower. Also, an institution may not use an appraisal that has been "readdressed" – appraisal reports that are altered by the appraiser to replace any references to the original client with the institution's name. An institution may use an appraisal that was prepared by an appraiser engaged directly by another financial services institution, as long as the institution determines that the appraisal conforms to the agencies' appraisal regulations and is otherwise acceptable.

<u>Independence of the Appraisal And Evaluation Function</u> **-** Because the appraisal and evaluation process is an integral component of the credit underwriting process, it should be isolated from influence by the institution's loan production process. An appraiser and an individual providing evaluation services should be independent of the loan and collection functions of the institution and have no interest, financial or otherwise, in the property or the transaction. In addition, individuals independent from the loan production area should oversee the selection of appraisers and individuals providing evaluation services. If absolute lines of independence cannot be achieved, an institution must be able to clearly demonstrate that it has prudent safeguards to isolate its collateral evaluation process from influence or interference from the loan production process. That is, no single person should have sole authority to render credit decisions on loans which they ordered or reviewed appraisals or evaluations.

The agencies recognize, however, that it is not always possible or practical to separate the loan and collection functions from the appraisal or evaluation process. In some cases, such as in a small or rural institution or branch, the only individual qualified to analyze the real estate collateral may also be a loan officer, other officer, or director of the institution. To ensure their independence, such lending officials, officers, or directors should abstain from any vote or approval involving loans on which they performed an appraisal or evaluation.

<u>Transactions That Require Appraisals</u> **-** Although the agencies' appraisal regulations exempt certain categories of real estate-related financial transactions from the appraisal requirements, most real estate transactions over $250,000 are considered federally related transactions and thus require appraisals. A "federally related transaction" means any real estate-related financial transaction, in which the agencies engage, contract for, or regulate and that requires the services of an appraiser. An agency also may impose more stringent appraisal requirements than the appraisal regulations require, such as when an institution's troubled condition is attributable to real estate loan underwriting problems.

<u>Minimum Appraisal Standards</u> **-** The agencies' appraisal regulations include five minimum standards for the preparation of an appraisal. The appraisal must:

- Conform to generally accepted appraisal standards as evidenced by the Uniform Standards of Professional Appraisal Practice (USPAP) promulgated by the Appraisal Standards Board (ASB) of the Appraisal Foundation unless principles of safe and sound banking require compliance with stricter standards. Although allowed by USPAP, the agencies' appraisal

regulations do not permit an appraiser to appraise any property in which the appraiser has an interest, direct or indirect, financial or otherwise;

- Be written and contain sufficient information and analysis to support the institution's decision to engage in the transaction. As discussed below, appraisers have available various appraisal development and report options; however, not all options may be appropriate for all transactions. A report option is acceptable under the agencies' appraisal regulations only if the appraisal report contains sufficient information and analysis to support an institution's decision to engage in the transaction.
- Analyze and report appropriate deductions and discounts for proposed construction or renovation, partially leased buildings, non-market lease terms, and tract developments with unsold units. This standard is designed to avoid having appraisals prepared using unrealistic assumptions and inappropriate methods. For federally related transactions, an appraisal is to include the current market value of the property in its actual physical condition and subject to the zoning in effect as of the date of the appraisal. For properties where improvements are to be constructed or rehabilitated, the regulated institution may also request a prospective market value based on stabilized occupancy or a value based on the sum of retail sales. However, the sum of retail sales for a proposed development is not the market value of the development for the purpose of the agencies' appraisal regulations. For proposed developments that involve the sale of individual houses, units, or lots, the appraiser must analyze and report appropriate deductions and discounts for holding costs, marketing costs and entrepreneurial profit. For proposed and rehabilitated rental developments, the appraiser must make appropriate deductions and discounts for items such as leasing commission, rent losses, and tenant improvements from an estimate based on stabilized occupancy;
- Be based upon the definition of market value set forth in the regulation. Each appraisal must contain an estimate of market value, as defined by the agencies' appraisal regulations; and,
- Be performed by state licensed or certified appraisers in accordance with requirements set forth in the regulation.

Appraisal Options - An appraiser typically uses three market value approaches to analyze the value of a property cost, income, and sales market. The appraiser reconciles the results of each approach to estimate market value. An appraisal will discuss the property's recent sales history and contain an opinion as to the highest and best use of the property. An appraiser must certify that he/she has complied with USPAP and is independent. Also, the appraiser must disclose whether the subject property was inspected and whether anyone provided significant assistance to the person signing the appraisal report.

An institution may engage an appraiser to perform either a Complete or Limited Appraisal. When performing a Complete Appraisal assignment, an appraiser must comply with all USPAP standards - without departing from any binding requirements - and specific guidelines when estimating market value. When performing a Limited Appraisal, the appraiser elects to invoke the Departure Provision which allows the appraiser to depart, under limited conditions, from standards identified as specific guidelines. For example, in a Limited Appraisal, the appraiser might not utilize all three approaches to value; however, departure from standards designated as binding requirements is not permitted. There are numerous binding requirements which are detailed in the USPAP. Use of the USPAP Standards publication as a reference is recommended. The book provides details on each appraisal standard and advisory opinions issued by the Appraisal Standards Board.

An institution and appraiser must concur that use of the Departure Provision is appropriate for the transaction before the appraiser commences the appraisal assignment. The appraiser must ensure that the resulting appraisal report will not mislead the institution or other intended users of the appraisal report. The agencies do not prohibit the use of a Limited Appraisal for a federally related transaction, but the agencies believe that institutions should be cautious in their use of a Limited Appraisal because it will be less thorough than a Complete Appraisal.
Complete and Limited Appraisal assignments may be reported in three different report formats: a Self-Contained Report, a Summary Report, or a Restricted Report. The major difference among these three reports relates to the degree of detail presented in the report by the appraiser. The Self-Contained Appraisal Report provides the most detail, while the Summary Appraisal Report presents the information in a condensed manner. The Restricted Report provides a capsulated report with the supporting details maintained in the appraiser's files.

The agencies believe that the Restricted Report format will not be appropriate to underwrite a significant number of federally related transactions due to the lack of sufficient supporting information and analysis in the appraisal report. However, it might be appropriate to use this type of appraisal report for ongoing collateral monitoring of an institution's real estate transactions and under other circumstances when an institution's program requires an evaluation.

Moreover, since the institution is responsible for selecting the appropriate appraisal report to support its underwriting decisions, its program should identify the type of appraisal report that will be appropriate for various lending transactions. The institution's program should consider the risk, size, and complexity of the individual loan and the supporting collateral when determining the level of appraisal development and the type of report format that will be ordered. When ordering an appraisal report, institutions may want to consider the benefits of a written engagement letter that outlines the institution's expectations and delineates each party's responsibilities, especially for large, complex, or out-of-area properties.

Transactions That Require Evaluations **-** A formal opinion of market value prepared by a state licensed or certified appraiser is not always necessary. Instead, less formal evaluations of the real estate may suffice for transactions that are exempt from the agencies' appraisal requirements.

Institutions should also establish criteria for obtaining appraisals or evaluations for safety and soundness reasons for transactions that are otherwise exempt from the agencies' appraisal regulations.

Evaluation Content **-** An institution should establish prudent standards for the preparation of evaluations. At a minimum, an evaluation should:

- Be written;
- Include the preparer's name, address, and signature, and the effective date of the evaluation;
- Describe the real estate collateral, its condition, its current and projected use;
- Describe the source(s) of information used in the analysis;
- Describe the analysis and supporting information, and;
- Provide an estimate of the real estate's market value, with any limiting conditions.

An evaluation report should include calculations, supporting assumptions, and, if utilized, a discussion of comparable sales. Documentation should be sufficient to allow an institution to understand the analysis, assumptions, and conclusions. An institution's own real estate loan portfolio experience and value estimates prepared for recent loans on comparable properties might provide a basis for evaluations.

An evaluation should provide an estimate of value to assist the institution in assessing the soundness of the transaction. Prudent practices also require that as an institution engages in more complex real estate-related financial transactions, or as its overall exposure increases, a more detailed evaluation should be performed. For example, an evaluation for a home equity loan might be based primarily on information derived from a sales data services organization or current tax assessment information, while an evaluation for an income-producing real estate property should fully describe the current and expected use of the property and include an analysis of the property's rental income and expenses.

Qualifications of Evaluation Providers **-** Individuals who prepare evaluations should have real estate-related training or experience and knowledge of the market relevant to the subject property. Based upon their experience and training, professionals from several fields may be qualified to prepare evaluations of certain types of real estate collateral. Examples include individuals with appraisal experience, real estate lenders, consultants or sales persons, agricultural extension agents, or foresters. Institutions should document the qualifications and experience level of individuals whom the institution deems acceptable to perform evaluations. An institution might also augment its in-house expertise and hire an outside party familiar with a certain market or a particular type of property. Although not required, an institution may use state licensed or certified appraisers to prepare evaluations. As such, Limited Appraisals reported in a Summary or Restricted format may be appropriate for evaluations of real estate-related financial transactions exempt from the agencies' appraisal requirements.

Valid Appraisals and Evaluations **-** The agencies allow an institution to use an existing appraisal or evaluation to support a subsequent transaction, if the institution documents that the existing estimate of value remains valid. Therefore, a prudent appraisal and evaluation program should include criteria to determine whether an existing appraisal or evaluation remains valid to support a subsequent transaction. Criteria for determining whether an existing appraisal or evaluation remains valid will vary depending upon the condition of the property and the marketplace, and the nature of any subsequent transaction. Factors that could cause changes to originally reported values include: the passage of time; the volatility of the local market; the availability of financing; the inventory of competing properties; improvements to, or lack of maintenance of, the subject property or competing surrounding properties; changes in zoning; or environmental contamination. The institution must document the information sources and analyses used to conclude that an existing appraisal or evaluation remains valid for subsequent transactions.

Renewals, Refinancings, and Other Subsequent Transactions **-** The agencies' appraisal regulations

generally allow appropriate evaluations of real estate collateral in lieu of an appraisal for loan renewals and refinancings; however, in certain situations an appraisal is required. If new funds are advanced in excess of reasonable closing costs, an institution is expected to obtain a new appraisal for the renewal of an existing transaction when there is a material change in market conditions or in the physical aspects of the property that threatens the institution's real estate collateral protection.

The decision to reappraise or reevaluate the real estate collateral should be guided by the exemption for renewals, refinancings, and other subsequent transactions. Loan workouts, debt restructurings, loan assumptions, and similar transactions involving the addition or substitution of borrowers may qualify for the exemption for renewals, refinancings, and other subsequent transactions. Use of this exemption depends on the condition and quality of the loan, the soundness of the underlying collateral and the validity of the existing appraisal or evaluation.

A reappraisal would not be required when an institution advances funds to protect its interest in a property, such as to repair damaged property, because these funds should be used to restore the damaged property to its original condition. If a loan workout involves modification of the terms and conditions of an existing credit, including acceptance of new or additional real estate collateral, which facilitates the orderly collection of the credit or reduces the institution's risk of loss, a reappraisal or reevaluation may be prudent, even if it is obtained after the modification occurs.

An institution may engage in a subsequent transaction based on documented equity from a valid appraisal or evaluation, if the planned future use of the property is consistent with the use identified in the appraisal or evaluation. If a property, however, has reportedly appreciated because of a planned change in use of the property, such as rezoning, an appraisal would be required for a federally related transaction, unless another exemption applied.

Program Compliance - An institution's appraisal and evaluation program should establish effective internal controls that promote compliance with the program's standards. An individual familiar with the appropriate agency's appraisal regulation should ensure that the institution's appraisals and evaluations comply with the agencies' appraisal regulations, these guidelines, and the institution's program. Loan administration files should document this compliance review, although a detailed analysis or comprehensive analytical procedures are not required for every appraisal or evaluation. For some loans, the compliance review may be part of the loan officer's overall credit analysis and may take the form of either a narrative or a checklist. Corrective action should be undertaken for noted deficiencies by the individual who prepared the appraisal or evaluation.

An institution's appraisal and evaluation program should also have comprehensive analytical procedures that focus on certain types of loans, such as large-dollar credits, loans secured by complex or specialized properties, non-residential real estate construction loans, or out-of-area real estate. These comprehensive analytical procedures should be designed to verify that the methods, assumptions, and conclusions are reasonable and appropriate for the transaction and the property. These procedures should provide for a more detailed review of selected appraisals and evaluations prior to the final credit decision. The individual(s) performing these reviews should have the appropriate training or experience, and be independent of the transaction.

Appraisers and persons performing evaluations should be responsible for any deficiencies in their reports. Deficient reports should be returned to them for correction. Unreliable appraisals or evaluations should be replaced prior to the final credit decision. Changes to an appraisal's estimate of value are permitted only as a result of a review conducted by an appropriately qualified state licensed or certified appraiser in accordance with Standard III of USPAP.

Portfolio Monitoring - The institution should also develop criteria for obtaining reappraisals or reevaluations as part of a program of prudent portfolio review and monitoring techniques, even when additional financing is not being contemplated. Examples of such types of situations include large credit exposures and out-of-area loans.

Referrals - Financial institutions are encouraged to make referrals directly to state appraiser regulatory authorities when a state licensed or certified appraiser violates USPAP, applicable State law, or engages in other unethical or unprofessional conduct. Examiners finding evidence of unethical or unprofessional conduct by appraisers will forward their findings and recommendations to their supervisory office for appropriate disposition and referral to the State, as necessary.

Examination Treatment

All apparent violations of the appraisal regulation should be described in the schedule of violations of laws and regulations. Management's comments and any commitments for correcting the practices that led to the apparent violation should be included. Violations that are technical in nature and do not impact the value conclusion

generally should not require a new appraisal. (These technical violations should not be relisted in subsequent examinations.) Since the point of an appraisal is to help make sound loan underwriting decisions, getting an appraisal on a loan already made simply to fulfill the requirements of the appraisal regulation, would be of little benefit. However, an institution should be expected to obtain a new appraisal on a loan in violation of the appraisal regulation when there is a safety and soundness reason for such action. For example, construction loans and lines of credit need to have the value of the real estate reviewed frequently in order for the institution to properly manage the credit relationship. A new appraisal might also be needed to determine the proper classification for examination purposes of a collateral dependent loan.

Loan Participations

A loan participation is a sharing or selling of ownership interests in a loan between two or more financial institutions. Normally, a lead bank originates the loan and sells ownership interests to one or more participating banks at the time the loan is closed. The lead (originating) bank retains a partial interest in the loan, holds all loan documentation in its own name, services the loan, and deals directly with the customer for the benefit of all participants. Properly structured, loan participations allow selling banks to accommodate large loan requests which would otherwise exceed lending limits, diversify risk, and improve liquidity. Participating banks are able to compensate for low local loan demand or invest in large loans without servicing burdens and origination costs. If not appropriately structured and documented, a participation loan can present unwarranted risks to both the seller and purchaser of the loan. Examiners should determine the nature and adequacy of the participation arrangement as well as analyze the credit quality of the loan.

Accounting and Capital Treatment - The proper accounting treatment for loan participations is governed by FAS 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*. FAS applies to both the transferor (seller) of assets and the transferee (purchaser).

Loan participations are accounted for as sales provided the sales criteria in FAS 140 are met. If the sales criteria are not met, participations are accounted for as secured borrowings. The sales criteria focus on whether or not control is effectively transferred to the purchaser. To qualify for sales treatment three criteria must be met:

- The purchaser's interest in the loan must be isolated from the seller, meaning that the purchaser's interest in the loan is presumptively beyond the reach of the seller and its creditors, even in bankruptcy or other receivership;
- Each purchaser has the right to pledge or exchange its interest in the loan, and there are no conditions that both constrain the purchaser from taking advantage of that right and provide more than a trivial benefit to the seller; and
- The agreement does not both entitle and obligate the seller to repurchase or redeem the purchaser's interest in the loan prior to the loan's maturity, and it does not provide the seller with the ability to unilaterally cause the purchaser to return its interest in the loan to the seller (other than through a cleanup call).

Right to Repurchase - Some loan participation agreements may give the seller a contractual right to repurchase the participated interest in the loan at any time. In this case, the seller's right to repurchase the participation effectively provides the seller with a call option on a specific asset and precludes sale accounting. If a loan participation agreement contains such a provision, the participation should be accounted for as a secured borrowing.

Recourse Arrangements - Recourse arrangements may, or may not, preclude loan participations from being accounted for as sales for financial reporting purposes. The date of the participation and the formality of the recourse provision affect the accounting for the transaction. Formal recourse provisions may affect the accounting treatment of a participation depending upon the date that the participation is transferred to another institution. Implicit recourse provisions would not affect the financial reporting treatment of a participation because the accounting standards look to the contractual terms of asset transfers in determining whether or not the criteria necessary for sales accounting treatment have been met. Although implicit recourse provisions would not affect the accounting treatment of a loan participation, they may affect the risk-based capital treatment of a participation.

Loan participations transferred prior to April 1, 2001, are accounted for based on FAS 125, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*. The sales criteria contained in FAS 125 are very similar to those contained in FAS 140, which are summarized above. However, for FDIC-insured institutions, the first of the sales criteria in FAS 140, known as the isolation test, applies to transfers occurring after December 31, 2001. As a result, loan participations transferred from April 1 through December 31, 2001, are

subject to the isolation test in FAS 125, but are otherwise accounted for based on FAS 140. Based upon the FASB's initial understanding of the nature of the FDIC's receivership power to reclaim certain assets sold by institutions that subsequently failed when it was drafting FAS 125, the FASB deemed assets sold by FDIC-insured institutions to be beyond the reach of creditors in an FDIC receivership. Therefore in FAS 125, the FASB concluded that assets transferred by an FDIC-insured institution, including participations, generally met the isolation test for sales accounting treatment with respect to receiverships. (Depending on the terms of the transfer, the transferred assets might not meet the isolation test for other reasons.) As a result, the mere existence of formal (written, contractual) recourse provisions would not, in and of themselves, preclude loan participations transferred prior to January 1, 2002, from being accounted for as sales provided all other criteria necessary for sales accounting treatment are met. However, participations transferred prior to January 1, 2002, which are subject to formal recourse provisions, as well as those subject to implicit (unwritten, noncontractual) recourse provisions in which the seller demonstrates intent to repurchase participations in the event of default even in the absence of a formal obligation to do so, would be considered assets sold with recourse when calculating the seller's risk-based capital ratios.

After the issuance of FAS 125, the FASB further clarified its understanding of the FDIC's ability to reclaim certain assets in a receivership, and the FDIC clarified when it would not seek to reclaim loan participations sold in Part 360 of the FDIC Rules and Regulations. Section 360.6 limits the FDIC's ability to reclaim certain loan participations sold without recourse, but does not limit the FDIC's ability to reclaim loan participations sold with recourse. For purposes of Section 360.6, the phrase "without recourse" means that the participation is not subject to any agreement which requires the lead bank (seller) to repurchase the participant's (purchaser's) interest in the loan or to otherwise compensate the participant due to a default on the underlying loan. The FASB's new understanding of the FDIC's receivership powers, including Part 360, is addressed in FAS 140.

Loan participations transferred after December 31, 2001, must be accounted for pursuant to all of the provisions of FAS 140, including its isolation test. In accordance with FAS 140, loan participations sold by FDIC-insured institutions with recourse generally will not be considered isolated from creditors in the event of receivership due to the FDIC's power to reclaim the participated assets. As a result, loan participations transferred after December 31, 2001, which are subject to formal (written, contractual) recourse provisions should be accounted for as secured borrowings by both the seller and the purchaser for financial reporting purposes. This means that the seller must not reduce the loan assets on its balance sheet for the participation, and that the entire amount of the loan must be included in the seller's assets for both leverage and risk-based capital purposes. Participations transferred after December 31, 2001, which are subject to implicit (unwritten, noncontractual) recourse provisions may be accounted for as sales by both the seller and the purchaser for financial reporting purposes, provided the other sales criteria addressed above are met. However, if the seller demonstrates intent to repurchase participations sold in the event of default even in the absence of a formal obligation to do so, then these participations will be treated as assets sold with recourse when calculating the seller's risk-based capital ratios. Consistent with an AICPA auditing interpretation, FDIC-insured institutions which account for loan participations transferred after December 31, 2001, as sales rather than as secured borrowings for financial reporting purposes should generally do so only if the participation agreement is supported by a legal opinion explaining how the isolation test for sales accounting treatment is met given the FDIC's receivership powers.

Call Report Treatment - When a loan participation is accounted for as a sale, the seller removes the participated interest in the loan from its books. The purchaser reports its interest in the loan as Loans in the Report of Condition, and in Call Report Schedule RC-C - Loans and Lease Financing Receivables, based upon collateral, borrower, or purpose. If a loan participation is accounted for as a secured borrowing, the seller does not remove the loan from its books. The participated portion of the loan is reported as both Loans and Other Borrowed Money in the Report of Condition. The purchaser would report its interest in the loan as Loans in the Report of Condition, and as Loans to depository institutions and acceptances of other banks in Schedule RC-C. More detailed guidance on accounting for transfers of financial assets, including loan participations, is contained in the Transfers of Financial Assets entry in the Glossary of the Call Report Instructions.

Independent Credit Analysis - A bank purchasing a participation loan is expected to perform the same degree of independent credit analysis on the loan as if it were the originator. To determine if a participation loan meets its credit standards, a participating bank must obtain all relevant credit information and details on collateral values, lien status, loan agreements and participation agreements before a commitment is made to purchase. The absence of such information may be evidence that the participating bank has not been prudent in its credit decision.

During the life of the participation, the participant should monitor the servicing and the status of the loan. In order to

exercise control of its ownership interest, a purchasing bank must ascertain that the selling bank will provide complete and timely credit information on a continuing basis.

The procedures for purchasing loan participations should be provided for in the bank's formal lending policy. The criteria for participation loans should be consistent with that for similar direct loans. The policy would normally require the complete analysis of the credit quality of obligations to be purchased, determination of value and lien status of collateral, and the maintenance of full credit information for the life of the participation.

Participation Agreements - A participation loan can present unique problems if the borrower defaults, the lead bank becomes insolvent, or a party to the participation arrangement does not perform as expected. These contingencies should be considered in a written participation agreement. The agreement should clearly state the limitations the originating and participating banks impose on each other and the rights all parties retain. In addition to the general terms of the participation transaction, participation agreements should specifically include the following considerations:

- The obligation of the lead bank to furnish timely credit information and to provide notification of material changes in the borrower's status;
- Requirements that the lead bank consult with participants prior to modifying any loan, guaranty, or security agreements and before taking any action on defaulted loans;
- The specific rights and remedies available to the lead and participating banks upon default of the borrower;
- Resolution procedures when the lead and participating banks cannot agree on the handling of a defaulted loan;
- Resolution of any potential conflicts between the lead bank and participants in the event that more than one loan to the borrower defaults; and
- Provisions for terminating the agency relationship between the lead and participating banks upon such events as insolvency, breach of duty, negligence, or misappropriation by one of the parties.

In some loan participation agreements, the participation agreement provides for the allocation of loan payments on some basis other than in proportion to ownership interest. For example, principal payments may be applied first to the participant's ownership interest and all remaining payments to the lead bank's ownership interest. In these instances, the participation agreement must also specify that in case of loan default, participants will share in all subsequent payments and collections in proportion to their respective ownership interest at the time of default. Without such a provision, the banks would not have a pro-rata sharing of credit risk. Provided the sales criteria contained in FAS 140 are met, loan participations sold in which the participation agreements provide for the allocation of loan payments, absent default, on some basis other than proportional ownership interests, may be treated as sold and removed from the balance sheet for financial reporting purposes. However, if the participation agreements do not also contain a provision requiring that all payments and collections received subsequent to default be allocated based on ownership interests in the loan as of the date of default, those participations will be treated as loans sold with recourse for risk-based capital purposes regardless of the financial reporting treatment. Further discussion of loans sold with recourse is contained in the Sales of Assets for Risk-Based Capital Purposes entry in the glossary of the Call Report Instructions.

Participations Between Affiliated Institutions - Examiners should ascertain that banks do not relax their credit standards when dealing with affiliated institutions and that participation loans between affiliated institutions are in compliance with Section 23A of the Federal Reserve Act. The Federal Reserve Board Staff has interpreted that the purchase of a participation loan from an affiliate is exempt from Section 23A provided that the commitment to purchase is obtained by the affiliate before the loan is consummated by the affiliate, and the decision to participate is based upon the bank's independent evaluation of the creditworthiness of the loan. If these criteria are not strictly met, the loan participation could be subject to the qualitative and/or quantitative restrictions of Section 23A. Refer to the Related Organizations Section of this Manual which describes transactions with affiliates.

Sales of 100 Percent Loan Participations - In some cases, depository institutions structure loan originations and participations with the intention of selling off 100 percent of the underlying loan amount. Certain 100 percent loan participation programs raise unique safety and soundness issues that should be addressed by an institution's policies, procedures and practices.

If not appropriately structured, these 100 percent participation programs can present unwarranted risks to the originating institution including legal, reputation and compliance risks. While this statement applies only to a small number of mostly very large insured depository institutions, the agreements should clearly state the limitations the originating and participating institutions impose on each other and the rights all parties retain. The originating institution should state that loan participants are participating in loans and are not investing in a business

enterprise. The policies of an institution engaged in these originations should address safety and soundness concerns and include criteria to address:

- The program's objectives – these should be of a commercial nature (structured as commercial undertakings and not as investments in securities).
- The plan of distribution – participants should be limited to sophisticated financial and commercial entities and sophisticated persons and the participations should not be sold directly to the public.
- The credit requirements applicable to the borrower - the originating institution should structure 100% loan participation programs only for borrowers who meet the originating institution's credit requirements.
- Access afforded program participants to financial information on the borrower - the originating institution should allow potential loan participants to obtain and review appropriate credit and other information to enable the participants to make an informed credit decision.

Environmental Risk Program

A lending institution should have in place appropriate safeguards and controls to limit exposure to potential environmental liability associated with real property held as collateral. The potential adverse effect of environmental contamination on the value of real property and the potential for liability under various environmental laws have become important factors in evaluating real estate transactions and making loans secured by real estate. Environmental contamination, and liability associated with environmental contamination, may have a significant adverse effect on the value of real estate collateral, which may in certain circumstances cause an insured institution to abandon its right to the collateral. It is also possible for an institution to be held directly liable for the environmental cleanup of real property collateral acquired by the institution. The cost of such a cleanup may exceed by many times the amount of the loan made to the borrower. A loan may be affected adversely by potential environmental liability even where real property is not taken as collateral. For example, a borrower's capacity to make payments on a loan may be threatened by environmental liability to the borrower for the cost of a hazardous contamination cleanup on property unrelated to the loan with the institution. The potential for environmental liability may arise from a variety of Federal and State environmental laws and from common law tort liability.

Guidelines for an Environmental Risk Program

As part of the institution's overall decision-making process, the environmental risk program should establish procedures for identifying and evaluating potential environmental concerns associated with lending practices and other actions relating to real property. The board of directors should review and approve the program and designate a senior officer knowledgeable in environmental matters responsible for program implementation. The environmental risk program should be tailored to the needs of the lending institution. That is, institutions that have a heavier concentration of loans to higher risk industries or localities of known contamination may require a more elaborate and sophisticated environmental risk program than institutions that lend more to lower risk industries or localities. The environmental risk program should provide for staff training, set environmental policy guidelines and procedures, require an environmental review or analysis during the application process, include loan documentation standards, and establish appropriate environmental risk assessment safeguards in loan workout situations and foreclosures.

Examination Procedures

Examiners should review an institution's environmental risk program as part of the examination of its lending and investment activities. When analyzing individual credits, examiners should review the institution's compliance with its own environmental risk program. Failure to establish or comply with an appropriate environmental program should be criticized and corrective action required.

LOAN PROBLEMS

It would be impossible to list all sources and causes of problem loans. They cover a multitude of mistakes a bank may permit a borrower to make, as well as mistakes directly attributable to weaknesses in the bank's credit administration and management. Some well-constructed loans may develop problems due to unforeseen circumstances on the part of the borrower; however, bank management must endeavor to protect a loan by every means possible. One or more of the items in the following list is often basic to the development of loan problems.
Many of these items may also be indicative of potential bank fraud and/or insider abuse. Additional information on the warning signs and suggested areas for investigation are included in the Bank Fraud and Insider Abuse Section of this Manual.

Poor Selection of Risks

Problems in this area may reflect the absence of sound lending policies, and/or management's lack of sound credit judgment in advancing certain loans. The following are general types of loans which may fall within the category of poor risk selection. It should be kept in mind that these examples are generalizations, and the examiner must weigh all relevant factors in determining whether a given loan is indeed a poor risk.

- Loans to finance new and untried business ventures which are inadequately capitalized.
- Loans based more upon the expectation of successfully completing a business transaction than on sound worth or collateral.
- Loans for the speculative purchase of securities or goods.
- Collateral loans made without adequate margin of security.
- Loans made because of other benefits, such as the control of large deposit balances, and not based upon sound worth or collateral.
- Loans made without adequate owner equity in underlying real estate security.
- Loans predicated on collateral which has questionable liquidation value.
- Loans predicated on the unmarketable stock of a local corporation when the bank is at the same time lending directly to the corporation. Action which may be beneficial to the bank from the standpoint of the one loan may be detrimental from the standpoint of the other loan.
- Loans which appear to be adequately protected by collateral or sound worth, but which involve a borrower of poor character risk and credit reputation.
- Loans which appear to be adequately protected by collateral, but which involve a borrower with limited or unassessed repayment ability.
- An abnormal amount of loans involving out-of-territory borrowers (excluding large banks properly staffed to handle such loans).
- Loans involving brokered deposits or link financing.

Overlending

It is almost as serious, from the standpoint of ultimate losses, to lend a sound financial risk too much money as it is to lend to an unsound risk. Loans beyond the reasonable capacity of the borrower to repay invariably lead to the development of problem loans.

Failure to Establish or Enforce Liquidation Agreements

Loans granted without a well-defined repayment program violate a fundamental principle of sound lending. Regardless of what appears to be adequate collateral protection, failure to establish at inception or thereafter enforce a program of repayment almost invariably leads to troublesome and awkward servicing problems, and in many instances is responsible for serious loan problems including eventual losses. This axiom of sound lending is important not only from the lender's standpoint, but also the borrower's.

Incomplete Credit Information

Lending errors frequently result because of management's failure to obtain and properly evaluate credit information. Adequate comparative financial statements, income statements, cash flow statements and other pertinent statistical support should be available. Other essential information, such as the purpose of the borrowing and intended plan or sources of repayment, progress reports, inspections, memoranda of outside information and loan conferences, correspondence, etc., should be contained in the bank's credit files. Failure of a bank's management to give proper attention to credit files makes sound credit judgment difficult if not impossible.

Overemphasis on Loan Income

Misplaced emphasis upon loan income, rather than soundness, almost always leads to the granting of loans possessing undue risk. In the long run, unsound loans usually are far more expensive than the amount of revenue they may initially produce.

Self-Dealing

Pronounced self-dealing practices are often present in serious problem bank situations and in banks which fail. Such practices with regard to loans are found in the form of overextensions of unsound credit to insiders, or their interests, who have improperly used their positions to obtain unjustified loans. Active officers, who serve at the pleasure of the ownership interests, are at times subjected to pressures which make it difficult to objectively evaluate such loans. Loans made for the benefit of ownership interests that are carried in the name of a seemingly unrelated party are sometimes used to conceal self-dealing loans.

Technical Incompetence

Technical incompetence usually is manifested in management's inability to obtain and evaluate credit information or put together a well-conceived loan package.

Management weaknesses in this area are almost certain to lead to eventual loan losses. Problems can also develop when management, technically sound in some forms of lending, becomes involved in specialized types of credit in which it lacks expertise and experience.

Lack of Supervision

Loan problems encountered in this area normally arise for one of two reasons:

- Absence of effective active management supervision of loans which possessed reasonable soundness at inception. Ineffective supervision almost invariably results from lack of knowledge of a borrower's affairs over the life of the loan. It may well be coupled with one or more of the causes and sources of loan problems previously mentioned.
- Failure of the board and/or senior management to properly oversee subordinates to determine that sound policies are being carried out.

Lack of Attention to Changing Economic Conditions

Economic conditions, both national and local, are continuously changing, management must be responsive to these changes. This is not to suggest that lending policies should be in a constant state of flux, nor does it suggest that management should be able to forecast totally the results of economic changes. It does mean, however, that bankers should realistically evaluate lending policies and individual loans in light of changing conditions. Economic downturns can adversely affect borrowers' repayment potential and can lessen a bank's collateral protection. Reliance on previously existing conditions as well as optimistic hopes for economic improvement can, particularly when coupled with one or more of the causes and sources of loan problems previously mentioned, lead to serious loan portfolio deterioration.

Competition

Competition among financial institutions for growth, profitability, and community influence sometimes results in the compromise of sound credit principles and acquisition of unsound loans. The ultimate cost of unsound loans outweighs temporary gains in growth, income and influence.

Potential Problem Indicators by Document

The preceding discussions describe various practices or conditions which may serve as a source or cause of weak loans. Weak loans resulting from these practices or conditions may manifest themselves in a variety of ways. While it is impossible to provide a complete detailing of potential "trouble indicators", the following list, by document, may aid the examiner in identifying potential problem loans during the examination process.

- **Debt Instrument -** Delinquency; irregular payments or payments not in accordance with terms; unusual or frequently modified terms; numerous renewals with little or no principal reduction; renewals that include interest; and extremely high interest rate in relation to comparable loans granted by the bank or the going rate for such loans in the bank's market area.
- **Liability Ledger -** Depending on the type of debt, failure to amortize in a regular fashion over a reasonable period of time, e.g., on an annual basis, seasonally, etc.; and a large number of out-of-territory borrowers, particularly in cases where these types of loans have increased substantially since the previous examination.
- **Financial and Operating Statements -** Inadequate or declining working capital position; excessive volume or negative trend in receivables; unfavorable level or negative trend in inventory; no recent aging of receivables, or a marked slowing in receivables; drastic increase in volume of payables; repeated and increasing renewals of carry-over operating debt; unfavorable trends in sales and profits; rapidly expanding expenses; heavy debt-to-worth level and/or deterioration in this relationship; large dividend or other payments without adequate or reasonable earnings retention; and net worth enhancements resulting solely from reappraisal in the value of fixed assets.
- **Cash Flow Documentation -** Absence of cash flow statements or projections, particularly as related to newly established term borrowers; projections indicating an inability to meet required interest and principal payments; and statements reflecting that cash flow is being provided by the sale of fixed assets or nonrecurring situations.
- **Correspondence and Credit Files -** Missing and/or inadequate collateral or loan documentation, such as financial statements, security agreements, guarantees, assignments, hypothecation agreements, mortgages, appraisals, legal opinions and title insurance, property insurance, loan applications; evidence of borrower credit checks; corporate or partnership borrowing authorizations; letters indicating that a borrower has suffered financial difficulties or has been unable to meet established repayment programs; and documents

that reveal other unfavorable factors relative to a line of credit.

- **Collateral -** Collateral evidencing a speculative loan purpose or collateral with inferior marketability characteristics (single purpose real estate, restricted stock, etc.) which has not been compensated for by other reliable repayment sources; and collateral of questionable value acquired subsequent to the extension of the credit.

LOAN APPRAISAL AND CLASSIFICATION

Loan Appraisal

In order to properly analyze any credit, an examiner must acquire certain fundamental information about a borrower's financial condition, purpose and terms of the borrowing, and prospects for its orderly repayment. The process involved in acquiring the foregoing information will necessarily vary with the size of the bank under examination and the type and sophistication of records utilized by the bank.

Because of the sheer volume of loans, it is necessary to focus attention on the soundness of larger lines of credit. Relatively smaller loans that appear to be performing satisfactorily may ordinarily be omitted from individual appraisal. The minimum size of the loan to be appraised depends upon the characteristics of the individual bank. The cut-off point should be low enough to permit an accurate appraisal of the loan portfolio as a whole, yet not so high as to preclude a thorough analysis of a representative portion of total loans. This procedure does not prevent an examiner from analyzing smaller loans which do not show adequate amortization for long periods of time, are overdue, are deficient in collateral coverage, or otherwise possess characteristics which would cause them to be subject to further scrutiny. In most instances, there should be direct correlation between the cut-off point utilized, the percentage of loans lined, and the asset quality and management ratings assigned at the previous examination.

The following types of loans or lines of credit should be analyzed at each examination:

- Loans or lines of credit listed for Special Mention or adversely classified at the previous FDIC examination or State examination, if applicable as a result of an alternating examination program;
- Loans reflected on the bank's problem loan list, if such a list exists, or identified as problem loans by the bank's credit grading system;
- Significant overdue loans as determined from the bank's delinquency list;
- Other significant loans which exhibit a high degree of risk that have come to the examiner's attention in the review of minutes, audit reports or other sources; and
- Loans to the bank's insiders, and their related interests and insiders of other banks.

The degree of analysis and/or time devoted to the above loans may vary. For example, the time devoted to a previously classified loan which has been substantially reduced or otherwise improved may be significantly less than other loans. Watch list loans should initially be sampled to assess if management's ratings are accurate. The reworking of certain loan files, such as seasoned real estate mortgages, which are not subject to significant change, should be kept to a minimum or omitted. This does not mean that an examiner should not briefly review new file information (since the previous examination) to determine any adverse trends with respect to significant loans. In addition, the examiner should review a sufficient volume of different types of loans offered by the bank to determine that bank policies are adequate and being followed.

Review of Files and Records

Commercial loan liability ledgers or comparable subsidiary records vary greatly in quality and detail. Generally, they will provide the borrower's total commercial loan liability to the bank, and the postings thereto will depict a history of the debt. Collateral records should be scrutinized to acquire the necessary descriptive information and to ascertain that the collateral held to secure the notes is as transcribed.

Gathering credit information is an important process and should be done with care to obtain the essential information, which will enable the examiner to appraise the loans accurately and fairly. Failure to obtain and record pertinent information contained in the credit files can reflect unfavorably on examiners, and a good deal of examiner and loan officer time can be saved by carefully analyzing the files. Ideally, credit files will also contain important correspondence between the bank and the borrower. However, this is not universally the case; in some instances, important correspondence is deliberately lodged in separate files because of its sensitive character. Correspondence between the bank and the borrower can be especially valuable to the examiner in developing added insight into the status of problem credits.

Verification of loan proceeds is one of the most valuable and effective loan examining techniques available to the examiner and often one of the most ignored. This verification process can disclose fraudulent or fictitious notes, misapplication of funds, loans made for the benefit or accommodation of parties other than the borrower of record, or utilization of loans for purposes other than those reflected in the bank's files. Verification of the disbursement of a selected group of large or unusual loans, particularly those subject to classification or Special Mention and those granted under circumstances which appear illogical or incongruous is important. However, it is more important to carry the verification process one step further to the apparent utilization of loan proceeds as reflected by the customer's deposit account or other related bank records. The examiner should also determine the purpose of the credit and the expected source of repayment.

Examination Procedures regarding loan portfolio analysis are included in the Examination Documentation Modules.

Loan Discussion

The examiner must comprehensively review all data collected on the individual loans. In most banks, this review should allow the majority of loans to be passed without criticism, eliminating the need for discussing these lines with the appropriate bank officer(s). No matter how thoroughly the supporting loan files have been reviewed, there will invariably be a number of loans which will require additional information or discussion before an appropriate judgment can be made as to their credit quality, relationship to other loans, proper documentation, or other circumstances related to the overall examination of the loan portfolio. Such loans require discussion with the appropriate bank officer(s) as do other loans for which adequate information has been assembled to indicate that classification or Special Mention is warranted.

Proper preparation for the loan discussion is essential, and the following points should be given due consideration by the examiner. Loans which have been narrowed down for discussion should be reviewed in depth to insure a comprehensive grasp of all factual material. Careful advance preparation can save time for all concerned. Particularly with regard to large, complicated lines, undue reliance should not be placed on memory to cover important points in loan discussion. Important weaknesses and salient points to be covered in discussion, questions to be asked, and information to be sought should be noted. The loan discussion should not involve discussion of trivialities since the banker's time is valuable, and it is no place for antagonistic remarks and snide comments directed at loan officers. The examiner should listen carefully to what the banker has to say, and concisely and accurately note this information. Failure to do so can result in inaccuracies and make follow-up at the next examination more difficult.

Loan Analysis

In the appraisal of individual loans, the examiner should weigh carefully the information obtained and arrive at a judgment as to the credit quality of the loans under review. Each loan is appraised on the basis of its own characteristics. Consideration is given to the risk involved in the project being financed; the nature and degree of collateral security; the character, capacity, financial responsibility, and record of the borrower; and the feasibility and probability of its orderly liquidation in accordance with specified terms. The willingness and ability of a debtor to perform as agreed remains the primary measure of a loan’s risk. This implies that the borrower must have earnings or liquid assets sufficient to meet interest payments and provide for reduction or liquidation of principal as agreed at a reasonable and foreseeable date. However, it does not mean that borrowers must at all times be in a position to liquidate their loans, for that would defeat the original purpose of extending credit.

Following analysis of specific credits, it is important that the examiner ascertain whether troublesome loans result from inadequate lending and collection policies and practices or merely reflect exceptions to basically sound credit policies and practices. In instances where troublesome loans exist due to ineffective lending practices and/or inadequate supervision, it is quite possible that existing problems will go uncorrected and further loan quality deterioration may occur. Therefore, the examiner should not only identify problem loans, but also ascertain the cause(s) of these problems. Weaknesses in lending policies or practices should be stressed, along with possible corrective measures, in discussions with the bank's senior management and/or the directorate and in the Report of Examination.

Loan Classification

To quantify and communicate the results of the loan appraisal, the examiner must arrive at a decision as to which loans are to be subjected to criticism and/or comment in the examination report. Adversely classified loans are allocated on the basis of risk to three categories: Substandard; Doubtful; and Loss.

Other loans of questionable quality, but involving insufficient risk to warrant classification, are designated as Special Mention loans. Loans lacking technical or legal support, whether or not adversely classified, should be brought to the attention of the bank's management. If the deficiencies in documentation are severe in scope or volume, a schedule of such loans should be included in the Report of Examination.

Loan classifications are expressions of different degrees of a common factor, risk of nonpayment. All loans involve some risk, but the degree varies greatly. It is incumbent upon examiners to avoid classification of sound loans. The practice of lending to sound businesses or individuals for reasonable periods is a legitimate banking function. Adverse classifications should be confined to those loans which are unsafe for the investment of depositors' funds.

If the internal grading system is determined to be accurate and reliable, examiners can use the institution’s data for preparing the applicable examination report pages and schedules, for determining the overall level of classifications, and for providing supporting comments regarding the quality of the loan portfolio. If the internal classifications are overly conservative, examiners should make appropriate adjustments and include explanations in the report’s comments.

A uniform agreement on the classification of assets and appraisal of securities in bank examinations was issued jointly on June 15, 2004, by the Office of the Comptroller of the Currency, the FDIC, the Federal Reserve Board, and the Office of Thrift Supervision. This interagency statement provides definitions of Substandard, Doubtful, and Loss categories used for adversely classifying bank assets. Amounts classified Loss should be promptly eliminated from the bank's books.

Uniform guidelines have been established by the FDIC regarding the Report of Exam treatment of assets classified Doubtful. The general policy is not to require charge-off or similar action for Doubtful classifications. Examiners should make a statement calling for a bank to charge-off a portion of loans classified Doubtful only when State law or policy requires. Further, any such statement should be clear as to the intended purpose of bringing the bank into conformity with those State requirements. An exception is made for formal actions under Section 8 of the FDI Act.

A statement addressing the chargeoff of loans classified Loss is a required comment Report of Examination when the amount is material. Amounts classified Loss should be promptly eliminated from the bank's books.

Definitions

- **Substandard -** Substandard loans are inadequately protected by the current sound worth and paying capacity of the obligor or of the collateral pledged, if any. Loans so classified must have a well-defined weakness or weaknesses that jeopardize the liquidation of the debt. They are characterized by the distinct possibility that the bank will sustain some loss if the deficiencies are not corrected.
- **Doubtful -** Loans classified Doubtful have all the weaknesses inherent in those classified Substandard with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently known facts, conditions and values, highly questionable and improbable.
- **Loss -** Loans classified Loss are considered uncollectible and of such little value that their continuance as bankable assets is not warranted. This classification does not mean that the loan has absolutely no recovery or salvage value but rather it is not practical or desirable to defer writing off this basically worthless asset even though partial recovery may be effected in the future.

There is a close relationship between classifications, and no classification category should be viewed as more important than the other. The uncollectibility aspect of Doubtful and Loss classifications makes their segregation of obvious importance. The function of the Substandard classification is to indicate those loans which are unduly risky and, if unimproved, may be a future hazard.

A complete list of adversely classified loans is to be provided to management, either during or at the close of an examination.

Special Mention Assets

Definition - A Special Mention asset has potential weaknesses that deserve management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the asset or in the institution's credit position at some future date. Special Mention assets are not adversely classified and do not expose an institution to sufficient risk to warrant adverse classification.

Use of Special Mention - The Special Mention category is not to be used as a means of avoiding a clear decision to classify a loan or pass it without criticism. Neither should it include loans listed merely "for the record" when uncertainties and complexities, perhaps coupled with large size, create some reservations about the loan. If

weaknesses or evidence of imprudent handling cannot be identified, inclusion of such loans in Special Mention is not justified.

Ordinarily, Special Mention credits have characteristics which corrective management action would remedy. Often weak origination and/or servicing policies are the cause for the Special Mention designation. Examiners should not misconstrue the fact that most Special Mention loans contain management correctable deficiencies to mean that loans involving merely technical exceptions belong in this category. However, instances may be encountered where technical exceptions are a factor in scheduling loans for Special Mention.

Careful identification of loans which properly belong in this category is important in determining the extent of risk in the loan portfolio and providing constructive criticism for bank management. While Special Mention Assets should not be combined with adversely classified assets, their total should be considered in the analysis of asset quality and management, as appropriate.

The nature of this category precludes inclusion of smaller lines of credit unless those loans are part of a large grouping listed for related reasons. Comments on loans listed for Special Mention in the Report of Examination should be drafted in a fashion similar to those for adversely classified loans. There is no less of a requirement upon the examiner to record clearly the reasons why the loan is listed. The major thrust of the comments should be towards achieving correction of the deficiencies identified.

Troubled Commercial Real Estate Loan Classification Guidelines

Additional classification guidelines have been developed to aid the examiner in classifying troubled commercial real estate loans. These guidelines are intended to supplement the uniform guidelines discussed above. After performing an analysis of the project and its appraisal, the examiner must determine the classification of any exposure.

The following guidelines are to be applied in instances where the obligor is devoid of other reliable means of repayment, with support of the debt provided solely by the project. If other types of collateral or other sources of repayment exist, the project should be evaluated in light of these mitigating factors.

- **Substandard -** Any such troubled real estate loan or portion thereof should be classified Substandard when well-defined weaknesses are present which jeopardize the orderly liquidation of the debt. Well-defined weaknesses include a project's lack of marketability, inadequate cash flow or collateral support, failure to complete construction on time or the project's failure to fulfill economic expectations. They are characterized by the distinct possibility that the bank will sustain some loss if the deficiencies are not corrected.
- **Doubtful -** Doubtful classifications have all the weaknesses inherent in those classified Substandard with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently known facts, conditions and values, highly questionable and improbable. A Doubtful classification may be appropriate in cases where significant risk exposures are perceived, but Loss cannot be determined because of specific reasonable pending factors which may strengthen the credit in the near term. Examiners should attempt to identify Loss in the credit where possible thereby limiting the excessive use of the Doubtful classification.
- **Loss -** Advances in excess of calculated current fair value which are considered uncollectible and do not warrant continuance as bankable assets. There is little or no prospect for near term improvement and no realistic strengthening action of significance pending.

Technical Exceptions

Deficiencies in documentation of loans should be brought to the attention of management for remedial action. Failure of management to effect corrections may lead to the development of greater credit risk in the future. Moreover, an excessive number of technical exceptions may be a reflection on management's quality and ability. Inclusion of the schedule "Assets With Credit Data or Collateral Documentation Exceptions" and various comments in the Report of Examination is appropriate in certain circumstances. Refer to the Report of Examination Instructions for further guidance.

Past Due and Nonaccrual

Overdue loans are not necessarily subject to adverse criticism. Nevertheless, a high volume of overdue loans almost always indicates liberal credit standards, weak servicing practices, or both. Because loan renewal and extension policies vary among banks, comparison of their delinquency ratios may be misleading. A more significant method of evaluating this factor lies in determination of the trend within the bank under examination, keeping in mind the distortion resulting from seasonal influences, economic conditions, or the timing of examinations. It is important for the examiner to carefully consider the makeup and reasons for the volume of overdue loans. Only then can it

be determined whether the volume of past due paper is a significant factor reflecting adversely on the quality or soundness of the overall loan portfolio or the efficiency and quality of management. It is important that overdue loans be computed on a uniform basis. This allows for comparison of overdue totals between examinations and/or with other banks.

The Report of Examination includes information on overdue and nonaccrual loans. Loans which are still accruing interest but are past their maturity or on which either interest or principal is due and unpaid (including unplanned overdrafts) are separated by loan type into two distinct groupings: 30 to 89 days past due and 90 days or more past due. Nonaccrual loans may include both current and past due loans. In the case of installment credit, a loan will not be considered overdue until at least two monthly payments are delinquent. The same will apply to real estate mortgage loans, term loans or any other loans payable on regular monthly installments of principal and interest.

Some modification of the overdue criteria may be necessary because of applicable State law, joint examinations, or unusual circumstances surrounding certain kinds of loans or in individual loan situations. It will always be necessary for the examiner to ascertain the bank's renewal and extension policies and procedures for collecting interest prior to determining which loans are overdue, since such practices often vary considerably from bank to bank. This is important not only to validate which loans are actually overdue, but also to evaluate the soundness of such policies. Standards for renewal should be aimed at achieving an orderly liquidation of loans and not at maintaining a low ratio of past due paper through unwarranted extensions or renewals.

In larger departmentalized banks or banks with large branch systems, it may be informative to analyze delinquencies by determining the source of overdue loans by department or branch. This is particularly true if a large volume of overdue loans exist. The production of schedules delineating overdue loans by department or branch is encouraged if it will aid in pinpointing the source of a problem or be otherwise informative..

Continuing to accrue income on assets which are in default as to principal and interest overstates a bank's assets, earnings and capital. Call Report Instructions indicate that where the period of default of principal or interest equals or exceeds 90 days, the accruing of income should be discontinued unless the asset is well-secured and in process of collection. A debt is well-secured if collateralized by liens on or pledges of real or personal property, including securities that have a realizable value sufficient to discharge the debt in full; or by the guarantee of a financially responsible party. A debt is in process of collection if collection is proceeding in due course either through legal action, including judgment enforcement procedures, or, in appropriate circumstances, through collection efforts not involving legal action which are reasonably expected to result in repayment of the debt or its restoration to a current status. Banks are strongly encouraged to follow this guideline not only for reporting purposes but also bookkeeping purposes. There are several exceptions, modifications and clarifications to this general standard. First, consumer loans and real estate loans secured by one-to-four family residential properties are exempt from the nonaccrual guidelines. Nonetheless, these exempt loans should be subject to other alternative methods of evaluation to assure the bank's net income is not materially overstated. Second, any State statute, regulation or rule which imposes more stringent standards for nonaccrual of interest should take precedence over these instructions. Third, reversal of previously accrued but uncollected interest applicable to any asset placed in a nonaccrual status, and treatment of subsequent payments as either principal or interest, should be handled in accordance with generally accepted accounting principles. Acceptable accounting treatment includes reversal of all previously accrued but uncollected interest against appropriate income and balance sheet accounts.

Nonaccrual Loans That Have Demonstrated Sustained Contractual Performance

The following guidance applies to borrowers who have resumed paying the full amount of scheduled contractual interest and principal payments on loans that are past due and in nonaccrual status. Although a prior arrearage may not have been eliminated by payments from a borrower, the borrower may have demonstrated sustained performance over a period of time in accordance with the contractual terms. Such loans to be returned to accrual status, even though the loans have not been brought fully current, provided two criteria are met:

- All principal and interest amounts contractually due (including arrearage) are reasonably assured of repayment within a reasonable period, and
- There is a sustained period of repayment performance (generally a minimum of six months) by the borrower, in accordance with the contractual terms involving payments of cash or cash equivalents.

When the regulatory reporting criteria for restoration to accrual status are met, previous charge-offs taken would not have to be fully recovered before such loans are returned to accrual status. Loans that meet the above

criteria would continue to be disclosed as past due, as appropriate, until they have been brought fully current.

Troubled Debt Restructuring - Multiple Note Structure

The basic example of a trouble debt restructure (TDR) multiple note structure is a troubled loan that is restructured into two notes where the first or "A" note represents the portion of the original loan principal amount which is expected to be fully collected along with contractual interest. The second part of the restructured loan, or "B" note, represents the portion of the original loan that has been charged-off.

Such TDRs generally may take any of three forms. In certain TDRs, the "B" note may be a contingent receivable that is payable only if certain conditions are met (e.g., sufficient cash flow from property). For other TDRs, the "B" note may be contingently forgiven (e.g., note "B" is forgiven if note "A" is paid in full). In other instances, an institution would have granted a concession (e.g., rate reduction) to the troubled borrower but the "B" note would remain a contractual obligation of the borrower. Because the "B" note is not reflected as an asset on the institution's books and is unlikely to be collected, for reporting purposes the "B" note could be viewed as a contingent receivable.

Institutions may return the "A" note to accrual status provided the following conditions are met:

- The restructuring qualifies as a TDR as defined by FAS 15 and there is economic substance to the restructuring.
- The portion of the original loan represented by the "B" note has been charged-off. The charge-off must be supported by a current, well-documented credit evaluation of the borrower's financial condition and prospects for repayment under the revised terms. The charge-off must be recorded before or at the time of the restructuring.
- The "A" note is reasonably assured of repayment and of performance in accordance with the modified terms.
- In general, the borrower must have demonstrated sustained repayment performance (either immediately before or after the restructuring) in accordance with the modified terms for a reasonable period prior to the date on which the "A" note is returned to accrual status. A sustained period of payment performance generally would be a minimum of six months and involve payments in the form of cash or cash equivalents.

Under existing reporting requirements, the "A" note would be disclosed as a TDR. In accordance with these requirements, if the "A" note yields a market rate of interest and performs in accordance with the restructured terms, such disclosures could be eliminated in the year following restructuring. To be considered a market rate of interest, the interest rate on the "A" note at the time of restructuring must be equal to or greater than the rate that the institution is willing to accept for a new receivable with comparable risk.

Interagency Retail Credit Classification Policy

The quality of consumer credit soundness is best indicated by the repayment performance demonstrated by the borrower. Because retail credit generally is comprised of a large number of relatively small balance loans, evaluating the quality of the retail credit portfolio on a loan-by-loan basis is burdensome for the institution being examined and examiners. To promote an efficient and consistent credit risk evaluation, the FDIC, the Comptroller of Currency, the Federal Reserve and the Office of Thrift Supervision adopted the Uniform Retail Credit Classification and Account Management Policy (Retail Classification Policy.)

Retail credit includes open-end and closed-end credit extended to individuals for household, family, and other personal expenditures. It includes consumer loans and credit cards. For purposes of the policy, retail credit also includes loans to individuals secured by their personal residence, including home equity and home improvement loans.

In general, retail credit should be classified based on the following criteria:

- Open-end and closed-end retail loans past due 90 cumulative days from the contractual due date should be classified Substandard.
- Closed-end retail loans that become past due 120 cumulative days and open-end retail loans that become past due 180 cumulative days from the contractual due date should be charged-off. The charge-off should be taken by the end of the month in which the 120-or 180-day time period elapses.
- Unless the institution can clearly demonstrate and document that repayment on accounts in bankruptcy is likely to occur, accounts in bankruptcy should be charged off within 60 days of receipt of notification of filing from the bankruptcy court or within the delinquency time frames specified in this classification policy, whichever is shorter. The charge-off should be taken by the end of the month in which the applicable

time period elapses. Any loan balance not charged-off should be classified Substandard until the borrower re-establishes the ability and willingness to repay (with demonstrated payment performance for six months at a minimum) or there is a receipt of proceeds from liquidation of collateral.

- Fraudulent loans should be charged off within 90 days of discovery or within the delinquency time frames specified in this classification policy, whichever is shorter. The charge-off should be taken by the end of the month in which the applicable time period elapses.
- Loans of deceased persons should be charged off when the loss is determined or within the delinquency time frames adopted in this classification policy, whichever is shorter. The charge-off should be taken by the end of the month in which the applicable time period elapses.
- One-to four-family residential real estate loans and home equity loans that are delinquent 90 days or more with loan-to-value ratios greater than 60 percent, should be classified Substandard.

When a residential or home equity loan is 120 days past due for closed-end credit and 180 days past due for open-end credit, a current assessment of value should be made and any outstanding loan balance in excess of the fair value of the property, less cost to sell, should be classified Loss. Properly secured residential real estate loans with loan-to-value ratios equal to or less than 60 percent are generally not classified based solely on delinquency status. Home equity loans to the same borrower at the same institution as the senior mortgage loan with a combined loan-to-value ratio equal to or less than 60 percent should not be classified. However, home equity loans where the institution does not hold the senior mortgage, that are delinquent 90 days or more should be classified Substandard, even if the loan-to-value ratio is equal to, or less than, 60 percent.

If an institution can clearly document that the delinquent loan is well secured and in the process of collection, such that collection will occur regardless of delinquency status, then the loan need not be classified. A well secured loan is collateralized by a perfected security interest in, or pledges of, real or personal property, including securities, with an estimated fair value, less cost to sell, sufficient to recover the recorded investment in the loan, as well as a reasonable return on that amount. In the process of collection means that either a collection effort or legal action is proceeding and is reasonably expected to result in recovery of the loan balance or its restoration to a current status, generally within the next 90 days.

This policy does not preclude an institution from adopting an internal classification policy more conservative than the one detailed above. It also does not preclude a regulatory agency from using the Doubtful or Loss classification in certain situations if a rating more severe than Substandard is justified. Loss in retail credit should be recognized when the institution becomes aware of the loss, but in no case should the charge-off exceed the time frames stated in this policy.

Re-aging, Extensions, Deferrals, Renewals, or Rewrites

Re-aging is the practice of bringing a delinquent account current after the borrower has demonstrated a renewed willingness and ability to repay the loan by making some, but not all, past due payments. Re-aging of open-end accounts, or extensions, deferrals, renewals, or rewrites of closed-end accounts should only be used to help borrowers overcome temporary financial difficulties, such as loss of job, medical emergency, or change in family circumstances like loss of a family member. A permissive policy on re-agings, extensions, deferrals, renewals, or rewrites can cloud the true performance and delinquency status of the portfolio. However, prudent use of a policy is acceptable when it is based on recent, satisfactory performance and the true improvement in a borrower's other credit factors, and when it is structured in accordance with internal policies.

The decision to re-age a loan, like any other modification of contractual terms, should be supported in the institution's management information systems. Adequate management information systems usually identify and document any loan that is extended, deferred, renewed, or rewritten, including the number of times such action has been taken. Documentation normally shows that institution personnel communicated with the borrower, the borrower agreed to pay the loan in full, and the borrower shows the ability to repay the loan.

Institutions that re-age open-end accounts should establish a reasonable written policy and adhere to it. An account eligible for re-aging, extension, deferral, renewal, or rewrite should exhibit the following:

- The borrower should show a renewed willingness and ability to repay the loan.
- The account should exist for at least nine months before allowing a re-aging, extension, renewal, referral, or rewrite.
- The borrower should make at least three minimum consecutive monthly payments or the equivalent lump sum payment before an account is re-aged. Funds may not be advanced by the institution for this purpose.

- No loan should be re-aged, extended, deferred, renewed, or rewritten more than once within any twelve-month period; that is, at least twelve months must have elapsed since a prior re-aging. In addition, no loan should be re-aged, extended, deferred, renewed, or rewritten more than two times within any five-year period.
- For open-end credit, an over limit account may be re-aged at its outstanding balance (including the over limit balance, interest, and fees). No new credit may be extended to the borrower until the balance falls below the designated predelinquency credit limit.

Partial Payments on Open-End and Closed-End Credit

Institutions should use one of two methods to recognize partial payments. A payment equivalent to 90 percent or more of the contractual payment may be considered a full payment in computing delinquency. Alternatively, the institution may aggregate payments and give credit for any partial payment received. For example, if a regular installment payment is $300 and the borrower makes payments of only $150 per month for a six-month period, the loan would be $900, or three full months delinquent. An institution may use either or both methods in its portfolio, but may not use both methods simultaneously with a single loan.

Examination Considerations

Examiners should ensure that institutions adhere to the Retail Classification Policy. Nevertheless, there may be instances that warrant exceptions to the general classification policy. Loans need not be classified if the institution can document clearly that repayment will occur regardless of delinquency status. Examples might include loans well secured by marketable collateral and in the process of collection, loans for which claims are filed against solvent estates, and loans supported by valid insurance claims. Conversely, the Retail Classification Policy does not preclude examiners from reviewing and classifying individual large dollar retail credit loans that exhibit signs of credit weakness regardless of delinquency status.

In addition to reviewing loan classifications, the examiner should ensure that the ALLL provides adequate coverage for inherent losses. Sound risk and account management systems, including a prudent retail credit lending policy, measures to ensure and monitor adherence to stated policy, and detailed operating procedures, should also be implemented. Internal controls should be in place to ensure that the policy is followed. Institutions lacking sound policies or failing to implement or effectively follow established policies will be subject to criticism.

Examination Treatment

Use of the formula classification approach can result in numerous small dollar adversely classified items. Although these classification details are not always included in the Report of Examination, an itemized list is to be left with management. A copy of the listing should also be retained in the examination work papers.

Examiner support packages are available which have built in parameters of the formula classification policy, and which generate a listing of delinquent consumer loans to be classified in accordance with the policy. Use of this package may expedite the examination in certain cases, especially in larger banks.

Losses are one of the costs of doing business in consumer installment credit departments. It is important for the examiner to give consideration to the amount and severity of installment loan charge-offs when examining the department. Excessive loan losses are the product of weak lending and collection policies and therefore provide a good indication of the soundness of the consumer installment loan operation. The examiner should be alert also to the absence of installment loan charge-offs, which may indicate that losses are being deferred or concealed through unwarranted rewrites or extensions.

Dealer lines should be scheduled in the report under the dealer's name regardless of whether the contracts are accepted with or without recourse. Any classification or totaling of the nonrecourse line can be separately identified from the direct or indirect liability of the dealer. Comments and format for scheduling the indirect contracts will be essentially the same as for direct paper. If there is direct debt, comments will necessarily have to be more extensive and probably will help form a basis for the indirect classification.

No general rule can be established as to the proper application of dealers' reserves to the examiner's classifications. Such a rule would be impractical because of the many methods used by banks in setting up such reserves and the various dealer agreements utilized. Generally, where the bank is handling a dealer who is not financially responsible, weak contracts warrant classification irrespective of any balance in the dealer's reserve. Fair and reasonable judgment on the part of the examiner will determine application of dealer reserves.

If the amount involved would have a material impact on capital, consumer loans should be classified net of unearned income. Large business-type loans placed in consumer installment loan departments should receive

individual appraisal and, in all cases, the applicable unearned income discount should be deducted when such loans are classified.

Impaired Loans, Troubled Debt Restructurings, Foreclosures and Repossessions

Loan Impairment - A loan is impaired when, based on current information and events, it is likely that an institution will be unable to collect all amounts due according to the contractual terms of the loan agreement (i.e., principal and interest). The accounting standard for impaired loans is set forth in FAS 114, *Accounting by Creditors for Impairment of a Loan* as amended by FAS 118, *Accounting by Creditors for Impairment of a Loan - Income Recognition and Disclosures*. FAS 114 applies to all loans, except large groups of smaller-balance homogenous loans that are collectively evaluated for impairment and loans that are measured at fair value or the lower of cost or fair value.
When a loan is impaired under FAS 114, the amount of impairment should be measured based on the present value of expected future cash flows discounted at the loan's effective interest rate (i.e., the contractual interest rate adjusted for any net deferred loan fees or costs and premium or discount existing at the origination or acquisition of the loan). As a practical expedient, impairment may also be measured based on a loan's observable market price, or the fair value of the collateral, if the loan is collateral dependent. A loan is collateral dependent if repayment is expected to be provided solely by the underlying collateral and there are no other available and reliable sources of repayment.

If the measure of a loan calculated in accordance with FAS 114 is less than the book value of that loan, impairment should be recognized as a valuation allowance against the loan. For regulatory reporting and examination report purposes, this valuation allowance is included as part of the general allowance for loan and lease losses. In general, when the excess amount of the loan's book value is determined to be uncollectible, this excess amount should be promptly charged-off against the ALLL. When a loan is collateral dependent, any portion of the loan balance in excess of the fair value of the collateral (or fair value less cost to sell) should similarly be charged-off.

Troubled Debt Restructuring - Troubled debt restructuring takes placed when a bank grants a concession to a debtor in financial difficulty. The accounting standards for troubled debt restructurings are set forth in FAS 15, *Accounting by Debtors and Creditors for Troubled Debt Restructurings*, as amended by FAS 114. In certain situations FASB 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, also applies. It is the FDIC's policy that restructurings be reflected in examination reports in accordance with this accounting guidance. In addition, banks are expected to follow these principles when filing the Call Report.

Troubled debt restructurings may be divided into two broad groups: those where the borrower transfers assets to the creditor to satisfy the claim, which would include foreclosures; and those in which the terms of a debtor's obligation are modified, which may include reduction in the interest rate to an interest rate that is less than the current market rate for new obligations with similar risk , extension of the maturity date, or forgiveness of principal or interest. A third type of restructuring combines a receipt of assets and a modification of loan terms. A loan extended or renewed at an interest rate equal to the current interest rate for new debt with similar risk is not reported as a restructured loan for examination purposes.

Transfer of Assets to the Creditor - A bank that receives assets (except long-lived assets that will be sold) from a borrower in full satisfaction of the book value of a loan should record those assets at fair value. If the fair value of the assets received is less than the institution's recorded investment in the loan, a loss is charged to the ALLL. When property is received in full satisfaction of an asset other than a loan (e.g., a debt security), the loss should be reflected in a manner consistent with the balance sheet classification of the asset satisfied. When long-lived assets that will be sold, such as real estate, are received in full satisfaction of a loan, the real estate is recorded at its fair value less cost to sell. This fair value (less cost to sell) becomes the "cost" of the foreclosed asset.

To illustrate, assume a bank forecloses on a defaulted mortgage loan of $100,000 and takes title to the property. If the fair value of the realty at the time of foreclosure is $90,000 and costs to sell are estimated at $10,000, a $20,000 loss should be immediately recognized by a charge to the ALLL. The cost of the foreclosed asset becomes $80,000. If the bank is on an accrual basis of accounting, there may also be adjusting entries necessary to reduce both the accrued interest receivable and loan interest income accounts. Assume further that in order to effect sale of the realty to a third party, the bank is willing to offer a new mortgage loan (e.g., of $100,000) at a concessionary rate of interest (e.g., 10 percent while the market rate for new loans with similar risk is 20 percent). Before booking this new transaction, the bank must establish its "economic value". Pursuant to Accounting Principles Board Opinion No. 21 (APB 21, Interest on Receivables and Payables), the value is represented by the sum of the present value of the income stream to be

received from the new loan, discounted at the current market rate for this type of credit, and the present value of the principal to be received, also discounted at the current market rate. This economic value is the proper carrying value for the asset at its origination date, and if less than the fair value less cost to sell at time of foreclosure (e.g., $78,000 vs. $80,000), an additional loss has been incurred and should be immediately recognized. This additional loss should be reflected in the allowance if a relatively brief period has elapsed between foreclosure and subsequent resale of the property. However, the loss should be treated as "other operating expenses" if the asset has been held for a longer period. The new loan would be placed on the books at its face value ($100,000) and the difference between the new loan amount and the "economic value" ($78,000) is treated as unearned discount ($22,000). For examination and Call Report purposes, the asset would be shown net of the unearned discount which is reduced periodically as it is earned over the life of the new loan. Interest income is earned on the restructured loan at the previously established market rate. This is computed by multiplying the carrying value (i.e., face amount of the loan reduced by any principal payments, less unearned discount) by that rate (20 percent).

The basis for this accounting approach is the assumption that financing the resale of the property at a concessionary rate exacts an opportunity cost which the bank must recognize. That is, unearned discount represents the present value of the "imputed" interest differential between the concessionary and market rates of interest. Present value accounting also assumes that both the bank and the third party who purchased the property are indifferent to a cash sales price at the "economic value" or a higher financed price repayable over time.

Modification of Terms - When the terms of a TDR provide for a reduction of interest or principal, the institution should measure any loss on the restructuring in accordance with the guidance for impaired loans as set forth in FAS 114 unless the loans are measured at fair value or the lower of cost or fair value. If the fair value of the restructured loan is less than the book value of that loan, FAS 114 requires impairment to be recognized as a valuation allowance against the loan. For regulatory reporting and examination report purposes, this valuation allowance should be included as part of ALLL. If the excess amount of the loan's book value is determined to be uncollectible, this excess amount should be promptly charged-off against the ALLL.

For example, in lieu of foreclosure, a bank chooses to restructure a $100,000 loan to a borrower which had originally been granted with an interest rate of 10 percent for 10 years. The bank and the borrower have agreed to capitalize the accrued interest ($10,000) into the note balance, but the restructured terms will permit the borrower to repay the debt over 10 years at a six percent interest rate. The bank does not believe the loan is collateral dependent. In this situation, the bank would record the restructured loan at the present value of the new note amount ($110,000) discounted at the 10 percent rate specified in the original contract. This amount becomes the loan's fair value. The difference between the calculated fair value and the book value of the bank's restructured loan (which includes accrued interest, net deferred loan fees or costs, and unamortized premium or discount) is recognized by creating a valuation allowance with a corresponding charge to the provision for loan and lease losses. As a result, the net book value of the restructured loan is reflected at fair value.

Combination Approach - In some instances, the bank may receive assets in partial rather than full satisfaction of a loan or security and may also agree to alter the original repayment terms. In these cases, the recorded investment should be reduced by the fair value of the assets received and the remaining investment accounted for as a restructuring involving only modification of terms.

Examination Report Treatment - Examiners should continue to classify troubled loans, including any troubled collateral dependent loans, based on the definitions of Loss, Doubtful, and Substandard. When a loan is collateral dependent, any portion of the loan balance which exceeds the fair value of the collateral should be promptly charged-off against the ALLL. For other loans that are impaired or have been restructured, the excess of the book value of the loan over its fair value (or fair value less cost to sell, as appropriate) is recognized by creating a valuation allowance which is included in the ALLL. However, when available information confirms that loans and leases (including any recorded accrued interest, net deferred loan fees or costs, and unamortized premium or discount) other than collateral dependent loans, or portions thereof, are uncollectible, these amounts should be promptly charged-off against the ALLL, regardless of whether an allowance was established to recognize impairment under FAS 114.

An examiner should not automatically require an additional allowance for credit losses of impaired loans over and above what is calculated in accordance with these standards. However, an additional allowance on impaired loans may be necessary based on consideration of institution-specific factors, such as historical loss experience compared with estimates of such losses and concerns about the reliability of cash flow estimates, the quality of an institution's loan review function, and

controls over its process for estimating its FAS 114 allowance.

Other Considerations - Examiners may encounter situations where impaired loans and restructured debts are identified, but the bank has not properly accounted for the transactions. Where incorrect accounting treatment resulted in an overstatement of earnings, capital and assets, it will be necessary to determine the proper carrying values for these assets, utilizing the best available information developed by the examiner after consultation with bank management. Nonetheless, proper accounting for impaired and restructured loans is the responsibility of bank management. Examiners should not spend a disproportionate amount of time developing the appropriate accounting entries, but instead discuss with and require corrective action by bank management when the bank's treatment is not in accordance with accepted accounting guidelines. It must also be emphasized that collectability and proper accounting and reporting are separate matters; restructuring a borrower's debt does not ensure collection of the loan or security. As with all other assets, adverse classification should be assigned if analysis indicates there is risk of loss present. Examiners should take care, however, not to discourage or be critical of bank management's legitimate and reasonable attempts to achieve debt settlements through concessionary terms. In many cases, restructurings offer the only realistic means for a bank to bring about collection of weak or nonearning assets. Finally, the volume of impaired loans and restructured debts having concessionary interest rates should be considered when evaluating the bank's earnings performance and assigning the earnings performance rating.

Examination procedures for reviewing TDRs are included in the ED Modules.

Report of Examination Treatment of Classified Loans

The Items Subject to Adverse Classification page allows an examiner to present pertinent and readily understandable comments related to loans which are adversely classified. In addition, the Analysis of Loans Subject to Adverse Classification page permits analysis of present and previous classifications from the standpoint of source and disposition. These loan schedules should be prepared in accordance with the Report of Examination Instructions.

An examiner must present, in writing, relevant and readily understandable comments related to criticized loans. Therefore, a thorough understanding of all factors surrounding the loan is required and only those germane to description, collectability, and management plans should be included in the comments. Comments should be concise, but brevity is not to be accomplished by omission of adequate information. Comments should be informative and factual data emphasized. The important weaknesses of the loan should not be overshadowed by extraneous information which might well have been omitted. An ineffective presentation of a classified loan weakens the value of a Report of Examination and frequently casts doubt on the accuracy of the classifications. The essential test of loan comments is whether they justify the classification.

Careful organization is an important ingredient of good loan comments. Generally, loan comments should include the following items:

- **Identification -** Indicate the name and occupation or type of business of the borrower. Cosigners, endorsers and guarantors should be identified and in the case of business loans, it should be clear whether the borrower is a corporation, partnership, or sole proprietorship.
- **Description -** The make-up of the debt should be concisely described as to type of loan, amount, origin and terms. The history, purpose, and source of repayment should also be indicated.
- **Collateral -** Describe and evaluate any collateral, indicating the marketability and/or condition thereof. If values are estimated, note the source.
- **Financial Data -** Current balance sheet information along with operating figures should be presented, if such data are considered necessary. The examiner must exercise judgment as to whether a statement should be detailed in its entirety. When the statement is relevant to the classification, it is generally more effective to summarize weaknesses with the entire statement presented. On the other hand, if the statement does not significantly support or detract from the loan, a very brief summarization of the statement is in order.
- **Summarize the Problem -** The examiner's comments should explicitly point out reasons for the classification. Where portions of the line are accorded different classifications or are not subject to classification, comments should clearly set forth the reasoning for the split treatment.

- **Management's Intentions -** Comments should include any corrective program contemplated by management.

Examiners should avoid arbitrary or penalty classifications, nor should "conceded" or "agreed" be given as the principal reason for adverse classifications. Management's

opinions and ideas should not have to be emphasized; if a classification is well-founded, the facts will speak for themselves. If well-written, there is little need for long summary comments reemphasizing major points of the loan write-up.

When the volume of loan classifications reaches the point of causing supervisory concern, analysis of present and previous classifications from the standpoint of source and disposition becomes very important. For this reason, the Analysis of Loans Subject to Adverse Classification page should be completed in banks possessing characteristics which present special supervisory problems; when the volume or composition of adversely classified loans has changed significantly since the previous examination, including both upward and downward movements; and, in such other special or unusual situations as examiners deem appropriate. Generally, the page should not include consumer loans and overdrafts and it should be footnoted to indicate that these assets are not included.

Issuance of "Express Determination" Letters to Banks for Federal Income Tax Purposes

Tax Rules - The Internal Revenue Code and tax regulations allow a deduction for a loan that becomes wholly or partially worthless. All pertinent evidence is taken into account in determining worthlessness. Special tax rules permit a federally supervised depository institution to elect a method of accounting under which it conforms its tax accounting for bad debts to its regulatory accounting for loan charge-offs, provided certain conditions are satisfied. Under these rules, loans that are charged-off pursuant to specific orders of the institution's supervisory authority or that are classified by the institution as Loss assets under applicable regulatory standards are conclusively presumed to have become worthless in the taxable year of the charge-offs. These special tax rules are effective for taxable years ending on or after December 31, 1991.

To be eligible for this accounting method for tax purposes, an institution must file a conformity election with its Federal income tax return. The tax regulations also require the institution's primary Federal supervisory authority to expressly determine that the institution maintains and applies loan loss classification standards that are consistent with the regulatory standards of its supervisory authority.

For taxable years ending before the completion of the first examination of an institution's loan review process that is after October 1, 1992, transition rules allow an institution to make the conformity election without the determination letter from its primary supervisory authority. However, the letter must be obtained at the first examination involving the loan review process after October 1, 1992. If the letter is not issued by the supervisory authority at the examination, the election is revoked retroactively.

Once the first examination of the loan review process after October 1, 1992, has been performed by an institution's primary Federal supervisory authority, the transition rules no longer apply and the institution must have the "express determination" letter before making the election. To continue using the tax-book conformity method, the institution must request a new letter at each subsequent examination that covers the loan review process. If the examiner does not issue an "express determination" letter at the end of such an examination, the institution's election of the tax-book conformity method is revoked automatically as of the beginning of the taxable year that includes the date of examination. However, that examiner's decision not to issue an "express determination" letter does not invalidate an institution's election for any prior years. The supervisory authority is not required to rescind any previously issued "express determination" letters.

When an examiner does not issue an "express determination" letter, the institution is still allowed tax deductions for loans that are wholly or partially worthless. However, the burden of proof is placed on the institution to support its tax deductions for loan charge-offs.

Examination Guidelines - Banks are responsible for requesting "express determination" letters during examinations that cover their loan review process, i.e., during safety and soundness examinations. Examiners should not alter the scope or frequency of examinations merely to permit banks to use the tax-book conformity method.

When requested by a bank that has made or intends to make the election under Section 1.166-2(d)(3) of the tax regulations, the examiner-in-charge should issue an "express determination" letter, provided the bank does maintain and apply loan loss classification standards that are consistent with the FDIC's regulatory standards. The letter should only be issued at the completion of a safety and soundness examination at which the examiner-in-charge has concluded that the issuance of the letter is appropriate.

An "express determination" letter should be issued to a bank only if:

- The examination indicates that the bank maintains and applies loan loss classification standards that are

consistent with the FDIC's standards regarding the identification and charge-off of such loans; and
- There are no material deviations from the FDIC's standards.

Minor criticisms of the bank's loan review process as it relates to loan charge-offs or immaterial individual deviations from the FDIC's standards should not preclude the issuance of an "express determination" letter.

An "express determination" letter should not be issued if:

- The bank's loan review process relating to charge-offs is subject to significant criticism;
- Loan charge-offs reported in the Report of Condition and Income (Call Reports) are consistently overstated or understated; or
- There is a pattern of loan charge-offs not being recognized in the appropriate year.

When the issuance of an "express determination" letter is appropriate, it should be prepared on FDIC letterhead using the following format. The letter should be signed and dated by the examiner-in-charge and provided to the bank for its files. The letter is not part of the Report of Examination.

> Express Determination Letter for IRS Regulation 1.166-2(d)(3)
>
> "In connection with the most recent examination of [Name of Bank], by the Federal Deposit Insurance Corporation, as of [examination date], we reviewed the institution's loan review process as it relates to loan charge-offs. Based on our review, we concluded that the bank, as of that date, maintained and applied loan loss classification standards that were consistent with regulatory standards regarding loan charge-offs.
>
> This statement is made on the basis of a review that was conducted in accordance with our normal examination procedures and criteria. It does not in any way limit or preclude any formal or informal supervisory action (including enforcement actions) by this supervisory authority relating to the institution's loan review process or the level at which it maintains its allowance for loan and lease losses.
>
> *[signature]*
> Examiner-in-charge
> *[date signed]*

When an "express determination" letter is issued to a bank, a copy of the letter as well as documentation of the work performed by examiners in their review of the bank's loan loss classification standards should be maintained in the workpapers. A copy of the letter should also be forwarded to the Regional Office with the Report of Examination. The issuance of an "express determination" letter should be noted in the Report of Examination according to procedure in the Report of Examination Instructions.

When an examiner-in-charge concludes that the conditions for issuing a requested "express determination" letter have not been met, the examiner-in-charge should discuss the reasons for this conclusion with the Regional Office. The examiner-in-charge should then advise bank management that the letter cannot be issued and explain the basis for this conclusion. A comment indicating that a requested "express determination" letter could not be issued, together with a brief statement of the reasons for not issuing the letter are addressed in the Report of Examination Instructions.

CONCENTRATIONS

Generally a concentration is a significantly large volume of economically-related assets that an institution has advanced or committed to one person, entity, or affiliated group. These assets may in the aggregate present a substantial risk to the safety and soundness of the institution. Adequate diversification of risk allows the institution to avoid the excessive risks imposed by credit concentrations. It should also be recognized, however, that factors such as location and economic environment of the area limit some institutions' ability to diversify. Where reasonable diversification realistically cannot be achieved, the resultant concentration calls for capital levels higher than the regulatory minimums.

Concentrations generally are not inherently bad, but do add a dimension of risk which the management of the institution should consider when formulating plans and policies. In formulating these policies, management should, at a minimum, address goals for portfolio mix and limits within the loan and other asset categories. The institution's business strategy, management expertise and location should be considered when reviewing the policy. Management should also consider the need to track and monitor the economic and financial condition of specific geographic locations, industries and groups of borrowers in which the bank has invested heavily. All concentrations should be monitored closely by management and receive a more in-depth review than the diversified portions of the institution's assets. Failure to monitor concentrations can

result in management being unaware how significant economic events might impact the overall portfolio. This will also allow management to consider areas where concentration reductions may be necessary. Management and the board can monitor any reduction program using accurate concentration reports. If management is not properly monitoring concentration levels and limits, examiners may consider criticizing management.

To establish a meaningful tracking system for concentrations of credit, financial institutions should be encouraged to consider the use of codes to track individual borrowers, related groups of borrowers, industries, and individual foreign countries. Financial institutions should also be encouraged to use the standard industrial classification (SIC) or similar code to track industry concentrations. Any monitoring program should be reported regularly to the board of directors.

Refer to the Report of Examination Instructions for guidance in identifying and listing concentrations in the examination report.

FEDERAL FUNDS SOLD AND REPURCHASE AGREEMENTS

Federal funds sold and securities purchased under agreement for resale represent convenient methods to employ excess funds to enhance earnings. Federal funds are excess reserve balances and take the form of a one-day transfer of funds between banks. These funds carry a specified rate of interest and are free of the risk of loss due to fluctuations in market prices entailed in buying and selling securities. However, these transactions are usually unsecured and therefore do entail potential credit risk. Securities purchased under agreement for resale represent an agreement between the buying and selling banks that stipulates the selling bank will buy back the securities sold at an agreed price at the expiration of a specified period of time.

Federal funds sold are not "risk free" as is often supposed, and the examiner will need to recognize the elements of risk involved in such transactions. While the selling of funds is on a one-day basis, these transactions may evolve into a continuing situation. This development is usually the result of liability management techniques whereby the buying bank attempts to utilize the acquired funds to support a rapid expansion of its loan-investment posture and as a means of enhancing profits. Of particular concern to the examiner is that, in many cases, the selling bank will automatically conclude that the buying bank's financial condition is above reproach without proper investigation and analysis. If this becomes the case, the selling bank may be taking an unacceptable risk unknowingly.

Another area of potential risk involves selling Federal funds to a bank which may be acting as an intermediary between the selling bank and the ultimate buying bank. In this instance, the intermediary bank is acting as agent with the true liability for repayment accruing to the third bank. Therefore, it is particularly important that the original selling bank be aware of this situation, ascertain the ultimate disposition of its funds, and be satisfied as to the creditworthiness of the ultimate buyer of the funds.

Clearly, the "risk free" philosophy regarding the sale of Federal funds is inappropriate. Selling banks must take the necessary steps to assure protection of their position. The examiner is charged with the responsibility of ascertaining that selling banks have implemented and adhered to policy directives in this regard to forestall any potentially hazardous situations.

Examiners should encourage management of banks engaged in selling Federal funds to implement a policy with respect to such activity. This policy should include consideration of such matters as the aggregate sum to be sold at any one time, the maximum amount to be sold to any one buyer, the maximum duration of time the bank will sell to any one buyer, a list of acceptable buyers, and the terms under which a sale will be made. As in any form of lending, thorough credit evaluation of the prospective purchaser, both before granting the credit extension and on a continuing basis, is a necessity. Such credit analysis should emphasize the borrower's ability to repay, the source of repayment, and alternative sources of repayment should the primary source fail to materialize. While sales of Federal funds are normally unsecured unless otherwise regulated by State statutes, and while collateral protection is no substitute for thorough credit review, the selling bank should consider the possibility of requiring security if sales agreements are entered into on a continuing basis for specific but extended periods of time, or for overnight transactions which have evolved into longer term sales. Where the decision is made to sell Federal funds on an unsecured basis, the selling bank should be able to present logical reasons for such action based on conclusions drawn from its credit analysis of the buyer and bearing in mind the potential risk involved.

A review of Federal funds sold between examinations may prompt examiners to broaden the scope of their analysis of such activity if the transactions are not being handled in accordance with sound practices as outlined above. Where the bank has not developed a formal policy regarding the sale of Federal funds or fails to conduct a credit analysis of the buyer prior to a sale and during a continuous sale of

such funds, the matter should be discussed with management. In such discussion, it is incumbent upon examiners to inform management that their remarks are not intended to cast doubt upon the financial strength of any bank to whom Federal funds are sold. Rather, the intent is to advise the banker of the potential risks of such practices unless safeguards are developed. The need for policy formulation and credit review on all Federal funds sold should be reinforced via a comment in the Report of Examination. Also, if Federal funds sold to any one buyer equals or exceeds 100 percent of the selling bank's Tier 1 Capital, it should be listed on the Concentrations schedule unless secured by U.S. Government securities. Based on the circumstances, the examiner should determine the appropriateness of additional comments regarding risk diversification.

Securities purchased under an agreement to resell are generally purchased at prevailing market rates of interest. The purchasing bank must keep in mind that the transaction merely represents another form of lending. Therefore, considerations normally associated with granting secured credit should be made. Repayment or repurchases by the selling bank is a major consideration, and the buying bank should satisfy itself that the selling bank will be able to generate the necessary funds to repurchase the securities on the prescribed date. Policy guidelines should limit the amount of money extended to one seller. Collateral coverage arrangements should be controlled by procedures similar to the safeguards used to control any type of liquid collateral. Securities held under such an arrangement should not be included in the bank's investment portfolio but should be reflected in the Report of Examination under the caption Securities Purchased Under Agreements to Resell. Transactions of this nature do not require entries to the securities account of either bank with the selling bank continuing to collect all interest and transmit such payments to the buying bank.

FUNDAMENTAL LEGAL CONCEPTS AND DEFINITIONS

Laws and regulations that apply to credit extended by banks are more complicated and continually in a state of change. However, certain fundamental legal principles apply no matter how complex or innovative a lending transaction. To avoid needless litigation and ensure that each loan is a legally enforceable claim against the borrower or collateral, adherence to certain rules and prudent practices relating to loan transactions and documentation is essential. An important objective of the examiner's analysis of collateral and credit files is not only to obtain information about the loan, but also to determine if proper documentation procedures and practices are being utilized. While examiners are not expected to be experts on legal matters, it is important they be familiar with the Uniform Commercial Code (UCC) adopted by their respective states as well as other applicable State laws governing credit transactions. A good working knowledge of the various documents necessary to attain the desired collateral or secured position, and how those documents are to be used or handled in the jurisdiction relevant to the bank under examination, is also essential.

Uniform Commercial Code – Secured Transactions

Article 9 of the UCC governs secured transactions; i.e., those transactions which create a security interest in personal property or fixtures including goods, documents, instruments, general intangibles, chattel paper or accounts. Article 9 was significantly revised effective July 1, 2001, but each individual state must adopt the changes for it to become law. Because some states have enacted modified versions of the UCC and subsequent revisions, each applicable State statute should be consulted.

General Provisions

A Security Agreement is an agreement between a debtor and a secured party that creates or provides for a security interest. The Debtor is the person that has an interest in the collateral other than a security interest. The term Debtor also includes a seller of payment intangibles or promissory notes. The obligor is the person who owes on a secured transaction. The Secured Party is the lender, seller or other person in whose favor there is a security interest.

Grant of Security Interest

For a security interest to be enforceable against the debtor or third party with respect to the collateral, the collateral must be in the possession of the secured party pursuant to agreement, or the debtor must sign a security agreement which covers the description of the collateral.

Collateral

Any description of personal property or real estate is a sufficient description of the collateral whether or not it is specific if it reasonably identifies what is described. If the parties seek to include property acquired after the signing of the security agreement as collateral, additional requirements must be met.

Unless otherwise agreed a security agreement gives the secured party the rights to proceeds from the sale, exchange, collection or disposition of the collateral.

In some cases, the collateral that secures an obligation under one security agreement can be used to secure a new loan, too. This can be done by using a cross-collateralization clause in the security agreement.

Perfecting the Security Interest

Three terms basic to secured transactions are attachment, security agreement and security interest. Attachment refers to that point when the creditor's legal rights in the debtor's property come into existence or "attach." This does not mean the creditor necessarily takes physical possession of the property, or does it mean acquisition of ownership of the property. Rather, it means that before attachment, the borrower's property is free of any legal encumbrance, but after attachment, the property is legally bound by the creditor's security interest. In order for the creditor's security interest to attach, there must be a security agreement in which the debtor authenticates and provides a description of the collateral. A creditor's security interest can be possessory or nonpossessory, a secured party with possession pursuant to "agreement" means that the "agreement" for possession has to be an agreement that the person will have possession for purposes of security. The general rule is a bank must take possession of deposit accounts (proprietary), letter of credit rights, electronic chattel, paper, stocks and bonds to perfect a security interest therein. In a transaction involving a nonpossessory security interest, the debtor retains possession of the collateral. A security interest in collateral automatically attaches to the proceeds of the collateral and is automatically perfected in the proceeds if the credit was advanced to enable the purchase

A party's security interest in personal property is not protected against a debtor's other creditors unless it has been perfected. A security interest is perfected when it has attached and when all of the applicable steps required for perfection, such as the filing of a financing statement or possession of the collateral, have been taken. These provisions are designed to give notice to others of the secured party's interest in the collateral, and offer the secured party the first opportunity at the collateral if the need to foreclose should arise. If the security interest is not perfected, the secured party loses its secured status.

Right to Possess and Dispose of Collateral

Unless otherwise agreed, when a debtor defaults on a secured loan, a secured party has the right to take possession of the collateral without going to court if this can be done without breaching the peace. Alternatively, if the security agreement so provides, the secured party may require the debtor to assemble the collateral and make it available to the secured party at a place to be designated by the secured party which is reasonably convenient to both parties.

A secured party may then sell, lease or otherwise dispose of the collateral with the proceeds applied as follows: (a) foreclosure expenses, including reasonable attorneys' fees and legal expenses; (b) the satisfaction of indebtedness secured by the secured party's security interest in the collateral; and (c) the satisfaction of indebtedness secured by any subordinate security interest in the collateral if the secured party receives written notification of demand before the distribution of the proceeds is completed. If requested by the secured party, the holder of a subordinate security interest must furnish reasonable proof of his interest, and unless he does so, the secured party need not comply with his demand.

Examiners should determine bank policy concerning the verification of lien positions prior to advancing funds. Failure to perform this simple procedure may result in the bank unknowingly assuming a junior lien position and, thereby, greater potential loss exposure. Management may check filing records personally or a lien search may be performed by the filing authority or other responsible party. This is especially important when the bank grants new credit lines.

Agricultural Liens

An agricultural lien is generally defined as an interest, other than a security interest, in farm products that meets the following three conditions:

- The lien secures payment or performance of an obligation for goods or services furnished in connection with a debtor's farming operation or rent on real property leased by a debtor in connection with its farming operation.
- The lien is created by statute in favor of a person that in the ordinary course of its business furnished goods or services to a debtor in connection with a debtor's farming operation or leased property to a debtor in connection with the debtor's farming operation.
- The lien's effectiveness does not depend on the person's possession of the personal property.

An agricultural lien is therefore non-possessory. Law outside of UCC-9 governs creation of agricultural liens and their attachment to collateral. An agricultural lien cannot be created or attached under Article 9. Article 9, however, does govern perfection. In order to perfect an agricultural lien, a financing statement must be filed. A perfected agricultural lien on collateral has priority over a conflicting

security interest in or agricultural lien on the same collateral if the statute creating the agricultural lien provides for such priority. Otherwise, the agricultural lien is subject to the same priority rules as security interests (for example, date of filing).

A distinction is made with respect to proceeds of collateral for security interests and agricultural liens. For security interests, collateral includes the proceeds under Article 9. For agricultural liens, the collateral does not include proceeds unless State law creating the agricultural lien gives the secured party a lien on proceeds of the collateral subject to the lien.

Special Filing Requirements – There is a national uniform Filing System form. Filers, however are not required to use them. If permitted by the filing office, parties may file and otherwise communicate by means of records communicated and stored in a media other than paper. A peculiarity common to all states is the filing of a lien on aircraft; the security agreement must be submitted to the Federal Aviation Administration in Oklahoma City, Oklahoma.

Default and Foreclosure - As a secured party, a bank's rights in collateral only come into play when the obligor is in default. What constitutes default varies according to the specific provisions of each promissory note, loan agreement, security agreement, or other related documents. After an obligor has defaulted, the creditor usually has the right to foreclose, which means the creditor seizes the security pledged to the loan, sells it and applies the proceeds to the unpaid balance of the loan. For consumer transactions, there are strict consumer notification requirements prior to disposition of the collateral. For consumer transactions, the lender must provide the debtor with certain information regarding the surplus or deficiency in the disposition of collateral. There may be more than one creditor claiming a right to the sale proceeds in foreclosure situations. When this occurs, priority is generally established as follows: (1) Creditors with a perfected security interest (in the order in which lien perfection was attained); (2) Creditors with an unperfected security interest; and (3) General creditors.

Under the UCC procedure for foreclosing security interests, four concepts are involved. First is repossession or taking physical possession of the collateral, which may be accomplished with judicial process or without judicial process (known as self-help repossession), so long as the creditor commits no breach of the peace. The former is usually initiated by a replevin action in which the sheriff seizes the collateral under court order. A second important concept of UCC foreclosure procedures is redemption or the debtor's right to redeem the security after it has been repossessed. Generally, the borrower must pay the entire balance of the debt plus all expenses incurred by the bank in repossessing and holding the collateral. The third concept is retention that allows the bank to retain the collateral in return for releasing the debtor from all further liability on the loan. The borrower must agree to this action, hence would likely be so motivated only when the value of the security is likely to be less than or about equal to the outstanding debt. Finally, if retention is not agreeable to both borrower and lender, the fourth concept, resale of the security, comes into play. Although sale of the collateral may be public or private, notice to the debtor and other secured parties must generally be given. The sale must be commercially reasonable in all respects. Debtors are entitled to any surplus resulting from sale price of the collateral less any unpaid debt. If a deficiency occurs (i.e., the proceeds from sale of the collateral were inadequate to fully extinguish the debt obligation), the bank has the right to sue the borrower for this shortfall. This is a right it does not have under the retention concept.

Exceptions to the Rule of Priority - There are three exceptions to the general rule that the creditor with the earliest perfected security interest has priority. The first concerns a specific secured transaction in which a creditor makes a loan to a dealer and takes a security interest in the dealer's inventory. Suppose such a creditor files a financing statement with the appropriate public official to perfect the security interest. While it might be possible for the dealer's customers to determine if an outstanding security interest already exists against the inventory, it would be impractical to do so. Therefore, an exception is made to the general rule and provides that a buyer in the ordinary course of business, i.e., an innocent purchaser for value who buys in the normal manner, cuts off a prior perfected security interest in the collateral.

The second exception to the rule of priority concerns the vulnerability of security interests perfected by doing nothing. While these interests are perfected automatically, with the date of perfection being the date of attachment, they are extremely vulnerable at the hands of subsequent bona fide purchasers. Suppose, for example, a dealer sells a television set on a secured basis to an ultimate consumer. Since the collateral is consumer goods, the security interest is perfected the moment if attaches. But if the original buyer sells the television set to another person who buys it in good faith and in ignorance of the outstanding security interest, the UCC provides that the subsequent purchase cuts off the dealer's security interest. This second exception is much the same as the first except for one important difference: the dealer (creditor) in this case can be protected against purchase of a customer's collateral by filing a financing statement with the appropriate public official.

The third exception regards the after-acquired property clause that protects the value of the collateral in which the creditor has a perfected security interest. The after-acquired property clause ordinarily gives the original creditor senior priority over creditors with later perfected interests. However, it is waived as regards the creditor who supplies replacements or additions to the collateral or the artisan who supplies materials and services that enhance the value of the collateral as long as a perfected security interest in the replacement or additions, or collateral is held.

Borrowing Authorization

Borrowing authorizations in essence permit one party to incur liability for another. In the context of lending, this usually concerns corporations. A corporation may enter into contracts within the scope of the powers authorized by its charter. In order to make binding contracts on behalf of the corporation, the officers must be authorized to do so either by the board of directors or by expressed or implied general powers. Usually a special resolution expressly gives certain officers the right to obligate the corporate entity, pledge assets as collateral, agree to other terms of the indebtedness and sign all necessary documentation on behalf of the corporate entity.

Although a general resolution is perhaps satisfactory for the short-term, unsecured borrowings of a corporation, a specific resolution of the corporation's board of directors is generally advisable to authorize such transactions as term loans, loans secured by security interests in the corporation's personal property, or mortgages on real estate. Further, mortgaging or pledging substantially all of the corporation's assets without prior approval of the shareholders of the corporation is often prohibited, therefore, a bank may need to seek advice of counsel to determine if shareholder consent is required for certain contemplated transactions.

Loans to corporations should indicate on their face that the corporation is the borrower. The corporate name should appear followed by the name, title and signature of the appropriate officer. If the writing is a negotiable instrument, the UCC states the party signing is personally liable as a general rule. To enforce payment against a corporation, the note or other writing should clearly show that the debtor is a corporation.

Bond and Stock Powers

As mentioned previously, a bank generally obtains a security interest in stocks and bonds by possession. The documents which allow the bank to sell the securities if the borrower defaults are called stock powers and bond powers. The examiner should ensure the bank has, for each borrower who has pledged stocks or bonds, one signed stock power for all stock certificates of a single issuer, and a separate signed bond power for each bond instrument. The signature must agree with the name on the actual stock certificate or bond instrument. Refer to Federal Reserve Board Regulations Part 221 (Reg U) for further information on loans secured by investment securities.

Comaker

Two or more persons who are parties to a contract or promise to pay are known as comakers. They are a unit to the performance of one act and are considered primarily liable. In the case of default on an unsecured loan, a judgment would be obtained against all. A release against one is a release against all because there is but one obligation and if that obligation is released as to one obligor, it is released as to all others.

Loan Guarantee

Since banks often condition credit advances upon the backup support provided by third party guarantees, examiners should understand the legal fundamentals governing guarantees. A guarantee may be a guarantee of payment or of collection. "Payment guaranteed" or equivalent words added to a signature means that if the instrument is not paid when due, the guarantor will pay it according to its terms without resort by the holder to any other party. "Collection guaranteed" or equivalent words added to a signature means that if the instrument is not paid when due, the guarantor will pay it, but only after the holder has reduced to judgment a claim against the maker and execution has been returned unsatisfied, or after the maker has become insolvent or it is otherwise useless to proceed against such a party.

Contracts of guarantee are further divided into a limited guarantee which relates to a specific note (often referred to as an "endorsement") or for a fixed period of time, or a continuing guarantee which, in contrast, is represented by a separate instrument and enforceable for future (duration depends upon State law) transactions between the bank and the borrower or until revoked. A well drawn continuing guarantee contains language substantially similar to the following: "This is an absolute and unconditional guarantee of payment, is unconditionally delivered, and is not subject to the procurement of a guarantee from any person other than the undersigned, or to the performance or happening of any other condition." The aforementioned

unambiguous terms are necessary to the enforceability of contracts of guarantee, as they are frequently entered into solely as an accommodation for the borrower and without the guarantor's participation in the benefits of the loan. Thus, courts tend to construe contracts of guarantee strictly against the party claiming under the contract. Unless the guarantee is given prior to or at the time the initial loan is made, the guarantee may not be enforceable because of the difficulty of establishing that consideration was given. Banks should not disburse funds on such loans until they have the executed guarantee agreement in their possession. Banks should also require the guarantee be signed in the presence of the loan officer, or, alternatively, that the guarantor's signature be notarized. If the proposed guarantor is a partnership, joint venture, or corporation, the examiner should ensure the signing party has the legal authority to enter into the guarantee agreement. Whenever there is a question concerning a corporation's authority to guarantee a loan, counsel should be consulted and a special corporate resolution passed by the organization's board of directors.

Subordination Agreement

A bank extending credit to a closely held corporation may want to have the company's officers and shareholders subordinate to the bank's loan any indebtedness owed them by the corporation. This is accomplished by execution of a subordination agreement by the officers and shareholders. Subordination agreements are also commonly referred to as standby agreements. Their basic purpose is to prevent diversion of funds from reduction of bank debt to reduction of advances made by the firm's owners or officers.

Hypothecation Agreement

This is an agreement whereby the owner of property grants a security interest in collateral to the bank to secure the indebtedness of a third party. Banks often take possession of the stock certificates, plus stock powers endorsed in blank, in lieu of a hypothecation agreement. Caution, however, dictates that the bank take a hypothecation agreement setting forth the bank's rights in the event of default.

Real Estate Mortgage

A mortgage may be defined as a conveyance of realty given with the intention of providing security for the payment of debt. There are several different types of mortgage instruments but those commonly encountered are regular mortgages, deeds of trust, equitable mortgages, and deeds absolute given as security.

Regular Mortgages - The regular mortgage involves only two parties, the borrower and the lender. The mortgage document encountered in many states today is referred to as the regular mortgage. It is, in form, a deed or conveyance of realty by the borrower to the lender followed or preceded by a description of the debt and the property, and includes a provision to the effect that the mortgage be released upon full payment of the debt. Content of additional paragraphs and provisions varies considerably.

Deeds of Trust - In the trust deed, also known as the deed of trust, the borrower conveys the realty not to the lender but to a third party, a trustee, in trust for the benefit of the holder of the notes(s) that constitutes the mortgage debt. The deed of trust form of mortgage has certain advantages, the principle being that in a number of states it can be foreclosed by trustee's sale under the power of sale clause without court proceedings.

Equitable Mortgages - As a general rule, any instrument in writing by which the parties show their intention that realty be held as security for the payment of a debt, constitutes an equitable mortgage capable of being foreclosed in a court of equity.

Deeds Absolute Given as Security - Landowners who borrow money may give as security an absolute deed to the land. "Absolute deed" means a quitclaim or warranty deed such as is used in an ordinary realty sale. On its face, the transaction appears to be a sale of the realty; however, the courts treat such a deed as a mortgage where the evidence shows that the instrument was really intended only as security for a debt. If such proof is available, the borrower is entitled to pay the debt and demand reconveyance from the lender, as in the case of an ordinary mortgage. If the debt is not paid, the grantee must foreclose as if a regular mortgage had been made.

The examiner should ensure the bank has performed a title and lien search of the property prior to taking a mortgage or advancing funds. Proper procedure calls for an abstractor bringing the abstract up to date, and review of the abstract by an attorney or title insurance company. If an attorney performs the task, the abstract will be examined and an opinion prepared indicating with whom title rests, along with any defects and encumbrances disclosed by the abstract. Like an abstractor, an attorney is liable only for damages caused by negligence. If a title insurance company performs the task of reviewing the abstract, it does essentially the same thing; however, when title insurance is obtained, it represents a contract to make good, loss arising through defects in title to real estate or liens or encumbrances thereon. Title insurance covers various items not covered in an abstract and title opinion.

Some of the more common are errors by abstractors or attorneys include unauthorized corporate action, mistaken legal interpretations, and unintentional errors in public records by public officials. Once the bank determines title and lien status of the property, the mortgage can be prepared and funds advanced. The bank should record the mortgage immediately after closing the loan. Form, execution, and recording of mortgages vary from state to state and therefore must conform to the requirements of State law.

Collateral Assignment

An assignment is generally considered as the transfer of a legal right from one person to another. The rights acquired under a contract may be assigned if they relate to money or property, but personal services may not be assigned. Collateral assignments are used to establish the bank's rights as lender in the property or asset serving as collateral. It is generally used for loans secured by savings deposits, certificates of deposit or other cash accounts as well as loans backed by cash surrender value of life insurance. In some instances, it is used in financing accounts receivable and contracts. If a third party holder of the collateral is involved, such as life insurance company or the payor of an assigned contract, an acknowledgement should be obtained from that party as to the bank's assigned interest in the asset for collateral purposes.

CONSIDERATION OF BANKRUPTCY LAW AS IT RELATES TO COLLECTABILITY OF A DEBT

Introduction

Familiarity with the basic terms and concepts of the Federal bankruptcy law (formally known as the Bankruptcy Reform Act of 1978) is necessary in order for examiners to make informed judgments concerning the likelihood of collection of loans to bankrupt individuals or organizations. The following paragraphs present an overview of the subject. Complex situations may arise where more in-depth consideration of the bankruptcy provisions may be necessary and warrant consultation with the bank's attorney, Regional Counsel or other member of the Regional Office staff. For the most part, however, knowledge of the following information when coupled with review of credit file data and discussion with bank management should enable examiners to reach sound conclusions as to the eventual repayment of the bank's loans.

Forms of Bankruptcy Relief

Liquidation and rehabilitation are the two basic types of bankruptcy proceedings. Liquidation is pursued under Chapter 7 of the law and involves the bankruptcy trustee collecting all of the debtor's nonexempt property, converting it into cash and distributing the proceeds among the debtor's creditors. In return, the debtor obtains a discharge of all debts outstanding at the time the petition was filed which releases the debtor from all liability for those pre-bankruptcy debts.

Rehabilitation (sometimes known as reorganization) is effected through Chapter 11 or Chapter 13 of the law and in essence provides that creditors' claims are satisfied not via liquidation of the obligor's assets but rather from future earnings. That is, debtors are allowed to retain their assets but their obligations are restructured and a plan is implemented whereby creditors may be paid.

Chapter 11 bankruptcy is available to all debtors, whether individuals, corporations or partnerships. Chapter 13 (sometimes referred to as the "wage earner plan"), on the other hand, may be used only by individuals with regular incomes and when their unsecured debts are under $100,000 and secured debts less than $350,000. The aforementioned rehabilitation plan is essentially a contract between the debtor and the creditors. Before the plan may be confirmed, the bankruptcy court must find it has been proposed in good faith and that creditors will receive an amount at least equal to what would be received in a Chapter 7 proceeding. In Chapter 11 reorganization, all creditors are entitled to vote on whether or not to accept the repayment plan. In Chapter 13 proceedings, only secured creditors are so entitled. A majority vote binds the minority to the plan, provided the latter will receive pursuant to the plan at least the amount they would have received in a straight liquidation. The plan is fashioned so that it may be carried out in three years although the court may extend this to five years.

Most cases in bankruptcy courts are Chapter 7 proceedings, but reorganization cases are increasingly common. From the creditor's point of view, Chapter 11 or 13 filings generally result in greater debt recovery than do liquidation situations under Chapter 7. Nonetheless, the fact that reorganization plans are tailored to the facts and circumstances applicable to each bankrupt situation means that they vary considerably and the amount recovered by the creditor may similarly vary from nominal to virtually complete recovery.

Functions of Bankruptcy Trustees

Trustees are selected by the borrower's creditors and are responsible for administering the affairs of the bankrupt debtor's estate. The bankrupt's property may be viewed as a trust for the benefit of the creditors, consequently it follows the latter should, through their elected representatives, exercise substantial control over this property.

Voluntary and Involuntary Bankruptcy

When a debtor files a bankruptcy petition with the court, the case is described as a voluntary one. It is not necessary the individual or organization be insolvent in order to file a voluntary case. Creditors may also file a petition, in which case the proceeding is know as an involuntary bankruptcy. However, this alternative applies only to Chapter 7 cases and the debtor generally must be insolvent, i.e., unable to pay debts as they mature, in order for an involuntary bankruptcy to be filed.

Automatic Stay

Filing of the bankruptcy petition requires (with limited exceptions) creditors to stop or "stay" further action to collect their claims or enforce their liens or judgements. Actions to accelerate, set off or otherwise collect the debt are prohibited once the petition is filed, as are post-bankruptcy contacts with the obligor. The stay remains in effect until the debtor's property is released from the estate, the bankruptcy case is dismissed, the debtor obtains or is denied a discharge, or the bankruptcy court approves a creditor's request for termination of the stay. Two of the more important grounds applicable to secured creditors under which they may request termination are as follows: (1) The debtor has no equity in the encumbered property, and the property is not necessary to an effective rehabilitation plan; or (2) The creditor's interest in the secured property is not adequately protected. In the latter case, the law provides three methods by which the creditor's interests may be adequately protected: the creditor may receive periodic payments equal to the decrease in value of the creditor's interest in the collateral; an additional or substitute lien on other property may be obtained; or some other protection is arranged (e.g., a guarantee by a third party) to adequately safeguard the creditor's interests. If these alternatives result in the secured creditor being adequately protected, relief from the automatic stay will not be granted. If relief from the stay is obtained, creditors may continue to press their claims upon the bankrupt's property free from interference by the debtor or the bankruptcy court.

Property of the Estate

When a borrower files a bankruptcy petition, an "estate" is created and, under Chapter 7 of the law, the property of the estate is passed to the trustee for distribution to the creditors. Certain of the debtor's property is exempt from distribution under all provisions of the law (not just Chapter 7), as follows: homeowner's equity up to $7,500; automobile equity and household items up to $1,200; jewelry up to $500; cash surrender value of life insurance up to $4,000; Social Security benefits (unlimited); and miscellaneous items up to $400 plus any unused portion of the homeowner's equity. The bankruptcy code recognizes a greater amount of exemptions may be available under State law and, if State law is silent or unless it provides to the contrary, the debtor is given the option of electing either the Federal or State exemptions. Examiners should note that some liens on exempt property which would otherwise be enforceable are rendered unenforceable by the bankruptcy. A secured lender may thus become unsecured with respect to the exempt property. The basic rule in these situations is that the debtor can render unenforceable judicial liens on any exempt property and security interests that are both nonpurchase money and nonpossessory on certain household goods, tools of the trade and health aids.

Discharge and Objections to Discharge

The discharge, as mentioned previously, protects the debtor from further liability on the debts discharged. Sometimes, however, a debtor is not discharged at all (i.e., the creditor has successfully obtained an "objection to discharge") or is discharged only as regards to a specific creditor(s) and a specific debt(s) (an action known as "exception to discharge"). The borrower obviously remains liable for all obligations not discharged, and creditors may pursue customary collection procedures with respect thereto. Grounds for an "objection to discharge" include the following actions or inactions by the bankrupt debtor (this is not an all-inclusive list): fraudulent conveyance within 12 months of filing the petition; unjustifiable failure to keep or preserve financial records; false oath or account or presentation of a false claim in the bankruptcy case and estate, respectively; withholding of books or records from the trustee; failure to satisfactorily explain any loss or deficiency of assets; refusal to testify when legally required to do so; and receiving a discharge in bankruptcy within the last six full years. Some of the bases upon which creditors may file "exceptions to discharge" are: nonpayment of income taxes for the three years preceding the bankruptcy; money, property or services obtained through fraud, false pretenses or false representation; debts not scheduled on the bankruptcy petition and which the creditor had no notice; alimony or child support payments (this exception may be asserted

only by the debtor's spouse or children, property settlements are dischargeable); and submission of false or incomplete financial statements. If a bank attempts to seek an exception on the basis of false financial information, it must prove the written financial statement was materially false, it reasonably relied on the statement, and the debtor intended to deceive the bank. These assertions can be difficult to prove. Discharges are unavailable to corporations or partnerships. Therefore, after a bankruptcy, corporations and partnerships often dissolve or become defunct.

Reaffirmation

Debtors sometimes promise their creditors after a bankruptcy discharge that they will repay a discharged debt. An example wherein a debtor may be so motivated involves the home mortgage. To keep the home and discourage the mortgagee from foreclosing, a debtor may reaffirm this obligation. This process of reaffirmation is an agreement enforceable through the judicial system. The law sets forth these basic limitations on reaffirmations: the agreement must be signed before the discharge is granted; a hearing is held and the bankruptcy judge informs the borrower there is no requirement to reaffirm; and the debtor has the right to rescind the reaffirmation if such action is taken within 30 days.

Classes of Creditors

The first class of creditors is known as priority creditors. As the name implies, these creditors are entitled to receive payment prior to any others. Priority payments include administrative expenses of the debtor's estate, unsecured claims for wages and salaries up to $2,000 per person, unsecured claims for employee benefit plans, unsecured claims of individuals up to $900 each for deposits in conjunction with rental or lease of property, unsecured claims of governmental units and certain tax liabilities. Secured creditors are only secured up to the extent of the value of their collateral. They become unsecured in the amount by which collateral is insufficient to satisfy the claim. Unsecured creditors are of course the last class in terms of priority.

Preferences

Certain actions taken by a creditor before or during bankruptcy proceedings may be invalidated by the trustee if they result in some creditors receiving more than their share of the debtor's estate. These actions are called "transfers" and fall into two categories. The first involves absolute transfers, such as payments received by a creditor; the trustee may invalidate this action and require the payment be returned and made the property of the bankrupt estate. A transfer of security, such as the granting of a mortgage, may also be invalidated by the trustee. Hence, the trustee may require previously encumbered property be made unencumbered, in which case the secured party becomes an unsecured creditor. This has obvious implications as regards loan collectability.

Preferences are a potentially troublesome area for banks and examiners should have an understanding of basic principles applicable to them. Some of the more important of these are listed here.

- A preference may be invalidated (also known as "avoided") if it has all of these elements: the transfer was to or for the benefit of a creditor; the transfer was made for or on account of a debt already outstanding; the transfer has the effect of increasing the amount a creditor would receive in Chapter 7 proceedings; the transfer was made within 90 days of the bankruptcy filing, or within one year if the transfer was to an insider who had reasonable cause to believe the debtor was insolvent at the time of transfer; and the debtor was insolvent at the time of the transfer. Under bankruptcy law, borrowers are presumed insolvent for 90 days prior to filing the bankruptcy petition.
- Payment to a fully secured creditor is not a preference because such a transfer would not have the effect of increasing the amount the creditor would otherwise receive in a Chapter 7 proceeding. Payment to a partially secured creditor does, however, have the effect of increasing the creditor's share and is thus deemed a preference which the trustee may avoid.
- Preference rules also apply to a transfer of a lien to secure past debts, if the transfer has all five elements set forth under the first point.
- There are certain situations wherein a debtor has given a preference to a creditor but the trustee is not permitted to invalidate it. A common example concerns floating liens on inventory under the Uniform Commercial Code. These matters are subject to complex rules, however, and consultation with the Regional Office may be advisable when this issue arises.

Setoffs

Setoffs occur when a party is both a creditor and a debtor of another; amounts which a party owes are netted against amounts which are owed to that party. If a bank exercises its right of setoff properly and before the bankruptcy filing, the action is generally upheld in the bankruptcy proceedings. Setoffs made after the bankruptcy may also

be valid but certain requirements must be met of which the following are especially important: First, the debts must be between the same parties in the same right and capacity. For example, it would be improper for the bank to setoff the debtor's loan against a checking account of the estate of the obligor's father, of which the debtor is executor. Second, both the debt and the deposit must precede the bankruptcy petition filing. Third, the setoff may be disallowed if funds were deposited in the bank within 90 days of the bankruptcy filing and for the purpose of creating or increasing the amount to be set off.

Transfers Not Timely Perfected or Recorded

Under most circumstances, a bank which has not recorded its mortgage or otherwise fails to perfect its security interest in a proper timely manner runs great risk of losing its security. This is a complex area of the law but prudence clearly dictates that liens be properly obtained and promptly filed so that the possibility of losing the protection provided by collateral is eliminated.

SYNDICATED LENDING

Overview

Syndicated loans often represent a substantial portion of the commercial and industrial loan portfolios of large banks. A syndicated loan involves two or more banks contracting with a borrower, typically a large or middle market corporation, to provide funds at specified terms under the same credit facility. The average commercial syndicated credit is in excess of $100 million. Syndicated credits differ from participation loans in that lenders in a syndication participate jointly in the origination process, as opposed to one originator selling undivided participation interests to third parties. In a syndicated deal, each financial institution receives a pro rata share of the income based on the level of participation in the credit. Additionally, one or more lenders take on the role of lead or "agent" (co-agents in the case of more than one) of the credit and assume responsibility of administering the loan for the other lenders. The agent may retain varying percentages of the credit, which is commonly referred to as the "hold level."

The syndicated market formed to meet basic needs of lenders and borrowers, specifically:

- raising large amounts of money,
- enabling geographic diversification,
- satisfying relationship banking,
- obtaining working capital quickly and efficiently,
- spreading risk for large credits amongst banks, and
- gaining attractive pricing advantages.

The syndicated loan market has grown steadily, and growth in recent years has been extraordinary as greater market discipline has lead to uniformity in pricing. In recent years syndicated lending has come to resemble a capital market, and this trend is expected to continue as secondary market liquidity for these products continues to grow. The volume of syndicated credits is currently measured in trillions of dollars, and growth is expected to continue as pricing structures continue to appeal to lenders or "investors."

In times of excess liquidity in the marketplace, spreads typically are quite narrow for investment-grade facilities, thus making it a borrower's market. This may be accompanied by an easing of the structuring and covenants. In spite of tightening margins, commercial banks are motivated to compete regarding pricing in order to retain other business.

Relaxing covenants and pricing may result in lenders relying heavily on market valuations, or so-called "enterprise values" in arriving at credit decisions. These values are derived by applying a multiple to cash flow, which differs, by industry and other factors, to historical or projected cash flows of the borrower. This value represents the intangible business value of a company as a going concern, which often exceeds its underlying assets.

Many deals involve merger and acquisition financing. While the primary originators of the syndicated loans are commercial banks, most of the volume is sold and held by other investors.

A subset of syndicated lending is leveraged lending which refers to borrowers with an excessive level of debt and debt service compared with cash flow. By their very nature, these instruments are of higher risk.

Syndication Process

There are four phases in a loan syndication: Pre-Launch, Launch, Post-Launch, and Post-Closing.

The Pre-Launch Process - During this phase, the syndicators identify the borrower's needs and perform their initial due diligence. Industry information is gathered and analyzed, and background checks may be performed. Potential pricing and structure of the transaction takes shape. Formal credit write-ups are sent to credit officers for review and to senior members of syndication group for pricing approval. Competitive bids are sent to the borrower. The group then prepares for the launch.

An information memorandum is prepared by the agent. This memorandum is a formal and confidential document that should address all principal credit issues relating to the borrower and to the project being financed. It should, at a minimum, contain an overview of the transaction including a term sheet, an overview of the borrower's business, and quarterly and annual certified financial statements. This documents acts as both the marketing tool and as the source of information for the syndication.

The Launch Phase - The transaction is launched into the market when banks are sent the information memoranda mentioned above. Legal counsel commences to prepare the documentation. Negotiations take place between the banks and the borrower over pricing, collateral, covenants, and other terms. Often there is a bank meeting so potential participants can discuss the company's business and industry both with the lead agent and with the company.

Post-Launch Phase - Typically there is a two-week period for potential participants to evaluate the transaction and to decide whether or not to participate in the syndication. During this period, banks do their due diligence and credit approval. Often this entails running projection models, including stress tests, doing business and industry research; and presenting the transaction for the approval process once the decision is made to commit to the transaction.

After the commitment due date, participating banks receive a draft credit agreement for their comments. Depending upon the complexity of the agreement, they usually have about a week to make comments. The final credit agreement is then negotiated based on the comments and the loan would then close two to five days after the credit agreement is finalized.

Post-Closing Phase - Post-Closing, there should be ongoing dialogue with the borrower about financial/operating performance as well as quarterly credit agreement covenant compliance checks. Annually, a full credit analysis should be done as well as annual meetings of the participants for updates on financial and operating performance. Both the agent bank and the participants need to assess the loan protection level by analyzing the business risk as well as the financial risk. Each industry has particular dominant risks that must be assessed.

Loan Covenants

Loan covenants are special or particular conditions that are included in a loan agreement and that the borrower is required to fulfill in order for the loan agreement to remain valid. Typically, covenants cover several domains but can broadly be divided into financial and non-financial categories. The former refers to respecting certain financial conditions that can be defined either in absolute amounts or ratios. Some examples are:

Net worth test: restricts the total amount of debt a borrower can incur, expressed as a percentage of net worth.

Current ratio/ Quick Ratio tests: measures liquidity.

Interest, Debt service or Fixed Charges Coverage test: assure that some level of cash flow is generated by a company above its operating expenses and other fixed obligations.

Profitability test: Particularly important for the nonrated company; some usual ratios include EBITDA (earnings before interest, taxes, depreciation, and amortization) divided by average capital, operating income as a percentage of sales and earnings on business segment assets.

Capital expenditure limitations: Should be set according to the company's business plan and then measured accordingly.

Borrowing Base Limitations: Ascertain that companies are not borrowing to overinvest in inventory and provide a first line of fallback for the lenders if a credit begins to deteriorate.

Cash Flow volatility: Actual leverage covenant levels vary by industry segment. Typical ratios that are used to measure cash flow adequacy include EBITDA divided by total debt and EBITDA divided by interest expense.

Non-financial covenants may include restrictions on other matters such as management changes, provisions of information, guarantees, disposal of assets, etc.

Credit Ratings

Over the past several years, large credit rating agencies have entered the syndicated loan market (Standard and Poors, Moody, Fitch Investor Services). Loan ratings differ from bond ratings in that bond ratings emphasize the probability of default of the bond; whereas loan ratings emphasize the probability of default as well as the likelihood of collection upon default. Loan ratings emphasize the loan's structural characteristics (covenants, cash flow, collateral, etc.) and the expected loss on the loan.

Overview of the Shared National Credit (SNC) Program

The Shared National Credit (SNC) Program is an interagency initiative administered jointly by the FDIC, Federal Reserve Board, and the Office of the Comptroller of the Currency. The program was established in the 1970's for the purpose of ensuring consistency among the three Federal banking regulators in the classification of large syndicated credits.

Each SNC is reviewed annually at its agent bank or a designated review bank and the quality rating assigned by examiners is reported to all participating banks. These ratings are subsequently used during all examinations of participating banks, thus avoiding duplicate reviews of the same loan and ensuring consistent treatment with regard to regulatory credit ratings. Examiners should not change SNC ratings during risk management examinations. Any material change in a SNC should be reported to the appropriate regional SNC coordinator so that a determination can be made as to the appropriate action, including inclusion in the credit re-review process.

Definition of a SNC

Any loan and/or formal loan commitment, including any asset such as other real estate, stocks, notes, bonds and debentures taken for debts previously contracted, extended to a borrower by a supervised institution, its subsidiaries, and affiliates which in original amount aggregates $20 million or more and, which is shared by three or more unaffiliated institutions under a formal lending agreement; or, a portion of which is sold to two or more unaffiliated institutions, with the purchasing institution(s) assuming its pro rata share of the credit risk.

SNC's Include:

- All international credits to borrowers in the private sector, regardless of currency denomination, which are administered by a domestic office.
- Assets taken for debts previously contracted such as other real estate, stocks, notes, bonds, and debentures.
- Credits or credit commitments which have been reduced to less than $20 million and were classified or criticized during the previous SNC review, provided they have not been reduced below $10 million.
- Any other large credit(s) designated by the supervisory agencies as meeting the general intent or purpose of the SNC program.
- Two or more credits to the same borrower that aggregate $20 million and each credit has the same participating lenders

SNCs Do Not Include:

- Credits shared solely between affiliated supervised institutions.
- Private sector credits that are 100 percent guaranteed by a sovereign entity.
- International credits or commitments administered in a foreign office.
- Direct credits to sovereign borrowers.
- Credits known as "club credits", which include related borrowings but are not extended under the same lending agreement.
- Credits with different maturity dates for different lenders.

For additional information regarding the SNC Program examiners can contact the regional SNC coordinator.

Glossary of Syndicated Lending Terms

Agent – Entity that assumes the lead role in originating and administering the credit facility.

Arranging Banks – The banks that arrange a financing on behalf of a corporate borrower. Usually the banks commit to underwriting the whole amount only if they are unable to place the deal fully. Typically, however, they place the bulk of the facility and retain a portion on their books. For their efforts in arranging a deal, these banks collect an arrangement fee.

Front-end costs – Commissions, fees or other payments that are taken at the outset of a loan. Some examples are: *lead management fees* – paid in recognition of the lead manager's organization; *management fees* – usually divided equally between the management group and is payable regardless of drawdown; *underwriting fees* – a percentage of the sum being underwritten; *participation fees* – expressed as a percentage of each bank's participation in the loan; and *agency fees* – levied on most loans and provide for the appointment of one or more agent banks. The fee may be a percentage of the whole facility or a pre-arranged fixed sum.

LIBOR – London Interbank Offered Rate – The interest rate at which major international banks in London lend to each other and the rate(s) frequently underlying loan interest calculations. LIBOR will vary according to market conditions and will of course depend upon the loan period as well as the currency in question.

Participating Banks – a bank that has lent a portion of the outstanding amount to the borrower.

Reference Bank – A bank that sets the lending rate (LIBOR) at the moment of each loan rollover period

Tranche – In a large syndicated loan, different portions of the facility may be made available at different time periods, and in different currencies. These separate components are known as "tranches" of the facility.

Underwriter - A bank that guarantees the lending of the funds to the borrower irrespective of successful syndication or not.

Zeta score - There are models which predict bankruptcy based on the analysis of certain financial ratios. Edward Altman of New York University developed a model in 1968 which is used by the regulatory agencies called Zeta. The Zeta score methodology is intended to forecast the probability of a company entering bankruptcy within a twelve month period. It uses five financial ratios from reported accounting information to produce an objective measure of financial strength of a company. The ratios included in the measurement are: working capital/total assets; retained earnings/total assets; earnings before interest and taxes/total assets; market value of common and preferred equity/total liabilities (in non-public organizations, the book value of common and preferred equity should be substituted); and sales/total assets (for non-manufacturing companies, this variable is eliminated).

CREDIT SCORING

Automated credit scoring systems allow institutions to underwrite and price loans more quickly than was possible in the past. This efficiency has enabled some banks to expand their lending into national markets and originate loan volumes once considered infeasible. Scoring also reduces unit-underwriting costs, while yielding a more consistent loan portfolio that is easily securitized. These benefits have been the primary motivation for the proliferation of credit scoring systems among both large and small institutions.

Credit scoring systems identify specific characteristics that help define predictive variables for acceptable performance (delinquency, amount owed on accounts, length of credit history, home ownership, occupation, income, etc.) and assign point values relative to their overall importance. These values are then totaled to calculate a credit score, which helps institutions to rank order risk for a given population. Generally, an individual with a higher score will perform better relative to an individual with a lower credit score.

Few, if any, institutions have an automated underwriting system where the credit score is used exclusively to make the credit decision. Some level of human review is usually present to provide the flexibility needed to address individual circumstances. Institutions typically establish a minimum cut-off score below which applicants are denied and a second cutoff score above which applicants are approved. However, there is usually a range, or "gray area," in between the two cut-off scores where credits are manually reviewed and credit decisions are judgmentally determined.

Most, if not all, systems also provide for overrides of established cut-off scores. If the institution's scoring system effectively predicts loss rates and reflects management's risk parameters, excessive overrides will negate the benefits of an automated scoring system. Therefore, it is critical for management to monitor and control overrides. Institutions should develop acceptable override limits and prepare monthly override reports that provide comparisons over time and against the institution's parameters. Override reports should also identify the approving officer and include the reason for the override.

Although banks often use more than one type of credit scoring methodology in their underwriting and account management practices, many systems incorporate credit bureau scores. Credit bureau scores are updated periodically and validated on an ongoing basis against performance in credit bureau files. Scores are designed to be comparable across the major credit bureaus; however, the ability of any score to estimate performance outcome probabilities depends on the quality, quantity, and timely submission of lender data to the various credit bureaus. Often, the depth and thoroughness of data available to each credit bureau varies, and as a consequence, the quality of scores varies.

As a precaution, institutions that rely on credit bureau scores should sample and compare credit bureau reports to determine which credit bureau most effectively captures data for the market(s) in which the institution does business. For institutions that acquire credit from multiple regions, use of multiple scorecards may be appropriate, depending on apparent regional credit bureau strength. In some instances, it may be worthwhile for institutions to pull scores from each of the major credit bureaus and establish rules for selecting an average value. By tracking credit bureau scores over time and capturing performance data to differentiate which score seems to best indicate probable performance outcome, institutions can select the best score for any given market. Efforts to differentiate and select the best credit bureau score should be documented.

Although some institutions develop their own scoring models, most are built by outside vendors and subsequently maintained by the institution. Vendors build scoring models based upon specific information and parameters provided by bank management. Therefore, management must clearly communicate with the vendor and ensure that the scorecard developer clearly understands the bank's objectives. Bank management should also adhere closely to vendor manual specifications for system maintenance and management, particularly those that provide guidance for periodically assessing performance of the system.

Scoring models generally become less predictive as time passes. Certain characteristics about an applicant, such as income, job stability, and age change over time, as do overall demographics. One-by-one, these changes will result in significant shifts in the profile of the population. Once a fundamental change in the profile occurs, the model is less able to identify potentially good and bad applicants. As these changes continue, the model loses its ability to rank order risk. Thus, institutions must periodically validate the system's predictability and refine scoring characteristics when necessary. These efforts should be documented.

Institutions initially used credit scoring for consumer lending applications such as credit card, auto, and mortgage lending. However, credit scoring eventually gained acceptance in the small business sector. Depending on the manner in which it is implemented, credit scoring for small business lending may represent a fundamental shift in underwriting philosophy if institutions view a small business loan as more of a high-end consumer loan and, thus, grant credit more on the strength of the principals' personal credit history and less on the fundamental strength of the business. While this may be appropriate in some cases, it is important to remember that the income from small business remains the primary source of repayment for most loans. Banks that do not analyze business financial statements or periodically review their lines of credit may lose an opportunity for early detection of credit problems.

The effectiveness of any scoring system directly depends on the policies and procedures established to guide and enforce proper use. Policies should include an overview of the institution's scoring objectives and operations; the establishment of authorities and responsibilities over scoring systems; the use of a chronology log to track internal and external events that affect the scoring system; the establishment of bank officials responsible for reporting, monitoring, and reviewing overrides; as well as the provision of a scoring system maintenance program to ensure that the system continues to rank risk and to predict default and loss under the original parameters.

Examiners should refer to the Credit Card Specialty Bank Examination Guidelines and the Credit Card Activities section of the Examination Modules for additional guidance on credit scoring systems.

SUBPRIME LENDING

Introduction

There is not a universal definition of a subprime loan in the industry, but subprime lending is generally characterized as a lending program or strategy that targets borrowers who pose a significantly higher risk of default than traditional retail banking customers. Institutions often refer to subprime lending by other names such as the nonprime, nonconforming, high coupon, or alternative lending market.

Well-managed subprime lending can be a profitable business line; however, it is a high-risk lending activity. Successful subprime lenders carefully control the elevated credit, operating, compliance, legal, market, and reputation risks as well as the higher overhead costs associated with more labor-intensive underwriting, servicing, and collections. Subprime lending should only be conducted by institutions that have a clear understanding of the business and its inherent risks, and have determined these risks to be acceptable and controllable given the institution's staff, financial condition, size, and level of capital support. In addition, subprime lending should only be conducted within a comprehensive lending program that employs strong risk management practices to identify, measure, monitor, and control the elevated risks that are inherent in this activity. Finally, subprime lenders should retain additional capital support consistent with the volume and nature of the additional risks assumed. If the risks associated with this activity are not properly controlled, subprime lending may be considered an unsafe and unsound banking practice.

The term, subprime, refers to the credit characteristics of the borrower at the loan's origination, rather than the type of credit or collateral considerations. Subprime borrowers typically have weakened credit histories that may include a combination of payment delinquencies, charge-offs, judgments, and bankruptcies. They may also display reduced repayment capacity as measured by credit scores, debt-to-income ratios, or other criteria. Generally, subprime borrowers will display a range of credit risk characteristics that may include one or more of the following:

- Two or more 30-day delinquencies in the last 12 months, or one or more 60-day delinquencies in the last 24 months;
- Judgment, foreclosure, repossession, or charge-off in the prior 24 months;
- Bankruptcy in the last 5 years;
- Relatively high default probability as evidenced by, for example, a Fair Isaac and Co. risk score (FICO) of 660 or below (depending on the product/collateral), or other bureau or proprietary scores with an equivalent default probability likelihood; and/or
- Debt service-to-income ratio of 50 percent or greater, or otherwise limited ability to cover family living expenses after deducting total monthly debt-service requirements from monthly income.

This list is illustrative rather than exhaustive and is not meant to define specific parameters for all subprime borrowers. Additionally, this definition may not match all market or institution-specific subprime definitions, but should be viewed as a starting point from which examiners should expand their review of the bank's lending program.

Subprime lenders typically use the criteria above to segment prospects into subcategories such as, for example, A-, B, C, and D. However, subprime subcategories can vary significantly among lenders based on the credit grading criteria. What may be an "A" grade definition at one institution may be a "B" grade at another bank, but generally each grade represents a different level of credit risk.

While the industry often includes borrowers with limited or no credit histories in the subprime category, these borrowers can represent a substantially different risk profile than those with a derogatory credit history and are not inherently considered subprime. Rather, consideration should be given to underwriting criteria and portfolio performance when determining whether a portfolio of loans to borrowers with limited credit histories should be treated as subprime for examination purposes.

Subprime lending typically refers to a lending program that targets subprime borrowers. Institutions engaging in subprime lending generally have knowingly and purposefully focused on subprime lending through planned business strategies, tailored products, and explicit borrower targeting. An institution's underwriting guidelines and target markets should provide a basis for determining whether it should be considered a subprime lender. The average credit risk profile of subprime loan programs will exhibit the credit risk characteristics listed above, and will likely display significantly higher delinquency and/or loss rates than prime portfolios. High interest rates and fees are a common and relatively easily identifiable characteristic of subprime lending. However, high interest rates and fees by themselves do not constitute subprime lending.

Subprime lending does not include traditional consumer lending that has historically been the mainstay of community banking, nor does it include making loans to subprime borrowers as discretionary exceptions to the institution's prime retail lending policy. In addition, subprime lending does not refer to: prime loans that develop credit problems after acquisition; loans initially extended in subprime programs that are later upgraded, as a result of their performance, to programs targeted to prime borrowers; or community development loans as defined in the CRA regulations.

For supervisory purposes, a subprime lender is defined as an insured institution or institution subsidiary that has a subprime lending program with an aggregate credit exposure greater than or equal to 25 percent of Tier 1 capital. Aggregate exposure includes principal outstanding and committed, accrued and unpaid interest, and any retained residual assets relating to securitized subprime loans.

Capitalization

The FDIC's minimum capital requirements generally apply to portfolios that exhibit substantially lower risk profiles than exist in subprime loan programs. Therefore, these requirements may not be sufficient to reflect the risks associated with subprime portfolios. Each subprime lender is responsible for quantifying the amount of capital needed to offset the additional risk in subprime lending activities, and for fully documenting the methodology and analysis supporting the amount specified.

Examiners will evaluate the capital adequacy of subprime lenders on a case-by-case basis, considering, among other factors, the institution's own documented analysis of the capital needed to support its subprime lending activities. Examiners should expect capital levels to be risk sensitive, that is, allocated capital should reflect the level and variability of loss estimates within reasonably conservative parameters. Examiners should also expect institutions to specify a direct link between the estimated loss rates used to determine the required ALLL, and the unexpected loss estimates used to determine capital.

The sophistication of this analysis should be commensurate with the size, concentration level, and relative risk of the institution's subprime lending activities and should consider the following elements**:**

- Portfolio growth rates;
- Trends in the level and volatility of expected losses;
- The level of subprime loan losses incurred over one or more economic downturns, if such data/analyses are available;
- The impact of planned underwriting or marketing changes on the credit characteristics of the portfolio, including the relative levels of risk of default, loss in the event of default, and the level of classified assets;
- Any deterioration in the average credit quality over time due to adverse selection or retention;
- The amount, quality, and liquidity of collateral securing the individual loans;
- Any asset, income, or funding source concentrations;
- The degree of concentration of subprime credits;
- The extent to which current capitalization consists of residual assets or other potentially volatile components;
- The degree of legal and/or reputation risk associated with the subprime business line(s) pursued; and
- The amount of capital necessary to support the institution's other risks and activities.

Given the higher risk inherent in subprime lending programs, examiners should reasonably expect, as a starting point, that an institution would hold capital against such portfolios in an amount that is one and one half to three times greater than what is appropriate for non-subprime assets of a similar type. Refinements should depend on the factors analyzed above, with particular emphasis on the trends in the level and volatility of loss rates, and the amount, quality, and liquidity of collateral securing the loans. Institutions with subprime programs affected by this guidance should have capital ratios that are well above the averages for their traditional peer groups or other similarly situated institutions that are not engaged in subprime lending.

Some subprime asset pools warrant increased supervisory scrutiny and monitoring, but not necessarily additional capital. For example, well-secured loans to borrowers who are slightly below what is considered prime quality may entail minimal additional risks compared to prime loans, and may not require additional capital if adequate controls are in place to address the additional risks. On the other hand, institutions that underwrite higher-risk subprime pools, such as unsecured loans or high loan-to-value second mortgages, may need significantly higher levels of capital, perhaps as high as 100% of the loans outstanding depending on the level and volatility of risk. Because of the higher inherent risk levels and the increased impact that subprime portfolios may have on an institution's overall capital, examiners should document and reference each institution's subprime capital evaluation in their comments and conclusions regarding capital adequacy.

Stress Testing

An institution's capital adequacy analysis should include stress testing as a tool for estimating unexpected losses in its subprime lending pools. Institutions should project the performance of their subprime loan pools under conservative stress test scenarios, including an estimation of the portfolio's susceptibility to deteriorating economic, market, and business conditions. Portfolio stress testing should include "shock" testing of basic assumptions such as delinquency rates, loss rates, and recovery rates on collateral. It should also consider other potentially adverse scenarios, such as: changing attrition or prepayment rates; changing utilization rates for revolving products; changes in credit score distribution; and changes in the capital markets demand for whole loans, or asset-backed securities supported by subprime loans.

These are representative examples. Actual factors will vary by product, market segment, and the size and complexity of the portfolio relative to the institution's overall operations. Whether stress tests are performed manually, or through automated modeling techniques, the Regulatory Agencies will expect that:

- The process is clearly documented, rational, and easily understood by the board and senior management;
- The inputs are reliable and relate directly to the subject portfolios;
- Assumptions are well documented and conservative; and
- Any models are subject to a comprehensive validation process.

The results of the stress test exercises should be a documented factor in the analysis and determination of capital adequacy for the subprime portfolios.

Institutions that engage in subprime lending without adequate procedures to estimate and document the level of capital necessary to support their activities should be criticized. Where capital is deemed inadequate to support the risk in subprime lending activities, examiners should consult with their Regional Office to determine the appropriate course of action.

Risk Management

The following items are essential components of a risk management program for subprime lenders.

Planning and Strategy. Prior to engaging in subprime lending, the board and management should ensure that proposed activities are consistent with the institution's overall business strategy and risk tolerances, and that all involved parties have properly acknowledged and addressed critical business risk issues. These issues include the costs associated with attracting and retaining qualified personnel, investments in the technology necessary to manage a more complex portfolio, a clear solicitation and origination strategy that allows for after-the-fact assessment of underwriting performance, and the establishment of appropriate feedback and control systems. The risk assessment process should extend beyond credit risk and appropriately incorporate operating, compliance, market, liquidity, reputation and legal risks.

Institutions establishing a subprime lending program should proceed slowly and cautiously into this activity to minimize the impact of unforeseen personnel, technology, or internal control problems and to determine if favorable initial profitability estimates are realistic and sustainable. Strategic plan performance analysis should be conducted frequently in order to detect adverse trends or circumstances and take appropriate action in a timely manner.

Management and Staff. Prior to engaging in subprime lending, the board should ensure that management and staff possess sufficient expertise to appropriately manage the risks in subprime lending and that staffing levels are adequate for the planned volume of activity. Subprime lending requires specialized knowledge and skills that many financial institutions do not possess. Marketing, account origination, and collections strategies and techniques often differ from those employed for prime credit; thus it is generally not sufficient to have the same staff responsible for both subprime and prime loans. Servicing and collecting subprime loans can be very labor intensive and requires a greater volume of staff with smaller caseloads. Lenders should monitor staffing levels, staff experience, and the need for additional training as performance is assessed over time. Compensation programs should not depend primarily on volume or growth targets. Any targets used should be weighted towards factors such as portfolio quality and risk-adjusted profitability.

Lending Policies and Procedures. Lenders should have comprehensive written policies and procedures, specific to each subprime lending product, that set limits on the amount of risk that will be assumed and address how the institution will control portfolio quality and avoid excessive exposure. Policies and procedures should be in place before initiating the activity. Institutions may originate subprime loans through a variety of channels, including dealers, brokers, correspondents, and marketing firms. Regardless of the source, it is critical that underwriting policies and procedures incorporate the risk tolerances established by the board and management and explicitly define underwriting criteria and exception processes. Subprime lending policies and procedures should, at a minimum, address the items outlined in the loan reference module of the Examination Documentation Modules for subprime lending. If the institution elects to use scoring systems for approvals or pricing, the model should be tailored to address the behavioral and credit characteristics of the subprime population targeted and the products offered. It is not acceptable to rely on models developed for standard risk borrowers or products. Furthermore, the models should be reviewed frequently and updated as necessary to ensure assumptions remain valid.

Given the higher credit risk associated with the subprime borrower, effective subprime lenders use mitigating underwriting guidelines and risk-based pricing to reduce the overall risk of the loan. These guidelines include lower loan-to-value ratio requirements and lower maximum loan amounts relative to each risk grade within the portfolio. Given the high-risk nature of subprime lending, the need for thorough analysis and documentation is heightened relative to prime lending. Compromises in analysis or documentation can substantially increase the risk and severity of loss. In addition, subprime lenders should develop criteria for limiting the risk profile of borrowers selected, giving consideration to factors such as the frequency, recency, and severity of delinquencies and derogatory items; length of time with re-established credit; and reason for the poor credit history.

While the past credit deficiencies of subprime borrowers reflect a higher risk profile, subprime loan programs must be based upon the borrowers' current reasonable ability to repay and a prudent debt amortization schedule. Loan repayment should not be based upon foreclosure proceedings or collateral repossession. Institutions must recognize the additional default risks and determine if these risks are acceptable and controllable without resorting to foreclosure or repossession that could have been predetermined by the loan structure at inception.

Profitability and Pricing. A key consideration for lenders in the subprime market is the ability to earn risk-adjusted yields that appropriately compensate the institution for the increased risk and costs assumed. The institution must have a comprehensive framework for

pricing decisions and profitability analysis that considers all costs associated with each subprime product, including origination, administrative/servicing, expected charge-offs, funding, and capital. In addition, the pricing framework should allow for fluctuations in the economic cycle. Fees often comprise a significant portion of revenue in subprime lending. Consideration should be given to the portion of revenues derived from fees and the extent to which the fees are a recurring and viable source of revenue. Profitability projections should be incorporated into the business plan. Management should track actual performance against projections regularly and have a process for addressing variances.

Loan Review and Monitoring. Institutions must have comprehensive analysis and information systems that identify, measure, monitor and control the risks associated with subprime lending. Analysis must promote understanding of the portfolio and early identification of adverse quality/performance trends. Systems employed must posses the level of detail necessary to properly evaluate subprime activity. Recommended portfolio segmentation and trend analyses are fully discussed in the subprime lending loan reference module of the Examination Modules.

Analysis should take into consideration the effects of portfolio growth and seasoning, which can mask true performance by distorting delinquency and loss ratios. Vintage, lagged delinquency, and lagged loss analysis methods are sometimes used to account for growth, seasoning, and changes in underwriting. Analysis should also take into account the effect of cure programs on portfolio performance. Refer to the glossary of the Credit Card Specialty Bank Examination Guidelines for definitions of vintage, roll rate, and migration analysis.

Servicing and Collections. Defaults occur sooner and in greater volume than in prime lending; thus a well-developed servicing and collections function is essential for the effective management of subprime lending. Strong procedures and controls are necessary throughout the servicing process; however, particular attention is warranted in the areas of new loan setup and collections to ensure the early intervention necessary to properly manage higher risk borrowers. Lenders should also have well-defined written collection policies and procedures that address default management (e.g., cure programs and repossessions), collateral disposition, and strategies to minimize delinquencies and losses. This aspect of subprime lending is very labor intensive but critical to the program's success.

Cure programs include practices such as loan restructuring, re-aging, renewal, extension, or consumer credit counseling. Cure programs should be used only when the institution has substantiated the customer's renewed willingness and ability to pay. Management should ensure that its cure programs are neither masking poor initial credit risk selection nor deferring losses. Effective subprime lenders may use short-term loan restructure programs to assist borrowers in bringing loans current when warranted, but will often continue to report past due status on a contractual basis. Cure programs that alter the contractual past due status may mask actual portfolio performance and inhibit the ability of management to understand and monitor the true credit quality of the portfolio.

Repossession and resale programs are integral to the subprime business model. Policies and procedures for foreclosure and repossession activities should specifically address the types of cost/benefit analysis to be performed before pursuing collateral, including valuation methods employed; timing of foreclosure or repossession; and accounting and legal requirements. Policies should clearly outline whether the bank will finance the sale of the repossessed collateral, and if so, the limitations that apply. Banks should track the performance of such loans to assess the adequacy of these policies.

Compliance and Legal Risks. Subprime lenders generally run a greater risk of incurring legal action given the higher fees, interest rates, and profits; targeting customers who have little experience with credit or damaged credit records; and aggressive collection efforts. Because the risk is dependent, in part, upon the public perception of a lender's practices, the nature of these risks is inherently unpredictable. Institutions that engage in subprime lending must take special care to avoid violating consumer protection laws. An adequate compliance management program must identify, monitor and control the consumer protection hazards associated with subprime lending. The institution should have a process in place to handle the potential for heightened legal action. In addition, management should have a system in place to monitor consumer complaints for recurring issues and ensure appropriate action is taken to resolve legitimate disputes.

Audit. The institution's audit scope should provide for comprehensive independent reviews of subprime activities. Audit procedures should ensure, among other things, that a sufficient volume of accounts is sampled to verify the integrity of the records, particularly with respect to payments processing.

Third Parties. Subprime lenders may use third parties for a number of functions from origination to collections. In dealing with high credit-risk products, management must

take steps to ensure that exposures from third-party practices or financial instability are minimized. Proper due diligence should be performed prior to contracting with a third party vendor and on an ongoing basis thereafter. Contracts negotiated should provide the institution with the ability to control and monitor third party activities (e.g. growth restrictions, underwriting guidelines, outside audits, etc.) and discontinue relationships that prove detrimental to the institution.

Special care must be taken when purchasing loans from third party originators. Some originators who sell subprime loans charge borrowers high up-front fees, which may be financed into the loan. These fees provide incentive for originators to produce a high volume of loans with little emphasis on quality, to the detriment of a potential purchaser. These fees also increase the likelihood that the originator will attempt to refinance the loans. Contracts should restrict the originator from the churning of customers. Further, subprime loans, especially those purchased from outside the institution's lending area, are at special risk for fraud or misrepresentation. Management must also ensure that third party conflicts of interest are avoided. For example, if a loan originator provides recourse for poorly performing loans purchased by the institution, the originator or related interest thereof should not also be responsible for processing and determining the past due status of the loans.

Securitizations. Securitizing subprime loans carries inherent risks, including interim credit, liquidity, interest rate, and reputation risk, that are potentially greater than those for securitizing prime loans. The subprime loan secondary market can be volatile, resulting in significant liquidity risk when originating a large volume of loans intended for securitization and sale. Investors can quickly lose their appetite for risk in an economic downturn or when financial markets become volatile. As a result, institutions may be forced to sell loan pools at deep discounts. If an institution lacks adequate personnel, risk management procedures, or capital support to hold subprime loans originally intended for sale, these loans may strain an institution's liquidity, asset quality, earnings, and capital. Consequently, institutions actively involved in the securitization and sale of subprime loans should develop a contingency plan that addresses back-up purchasers of the securities, whole loans, or the attendant servicing functions, alternate funding sources, and measures for raising additional capital. An institution’s liquidity and funding structure should not be overly dependent upon the sale of subprime loans.

Given some of the unique characteristics of subprime lending, accounting for the securitization process requires assumptions that can be difficult to quantify reliably, and erroneous assumptions can lead to the significant overstatement of an institution's assets. Institutions should take a conservative approach when accounting for these transactions and ensure compliance with existing regulatory guidance. Refer to outstanding memoranda and examination instructions for further information regarding securitizations.

Classification

The Uniform Retail Credit Classification and Account Management Policy (Retail Classification Policy) governs the evaluation of consumer loans. This policy establishes general classification thresholds based on delinquency, but also grants examiners the discretion to classify individual retail loans that exhibit signs of credit weakness regardless of delinquency status. An examiner may also classify retail portfolios, or segments thereof, where underwriting standards are weak and present unreasonable credit risk, and may criticize account management practices that are deficient. Given the high-risk nature of subprime portfolios and their greater potential for loan losses, the delinquency thresholds for classification set forth in the Retail Classification Policy should be considered minimums. Well-managed subprime lenders should recognize the heightened risk-of-loss characteristics in their portfolios and, if warranted, internally classify their delinquent accounts well before the timeframes outlined in the interagency policy. If examination classifications are more severe than the Retail Classification Policy suggests, the examination report should explain the weaknesses in the portfolio and fully document the methodology used to determine adverse classifications.

ALLL Analysis

The institution’s documented ALLL analysis should identify subprime loans as a specific risk exposure separate from the prime portfolio. In addition, the analysis should segment the subprime lending portfolios by risk exposure such as specific product, vintage, origination channel, risk grade, loan to value ratio, or other grouping deemed relevant.

Pools of adversely classified subprime loans (to include, at a minimum, all loans past due 90 days or more) should be reviewed for impairment, and an adequate allowance should be established consistent with existing interagency policy. For subprime loans that are not adversely classified, the ALLL should be sufficient to absorb at least all estimated credit losses on outstanding balances over the current operating cycle, typically 12 months. To the extent that the historical net charge-off rate is used to estimate expected credit losses, it should be adjusted for changes in

trends, conditions, and other relevant factors, including business volume, underwriting, risk selection, account management practices, and current economic or business conditions that may alter such experience.

Subprime Auto Lending

Underwriting. Subprime auto lenders use risk-based pricing of loans in addition to more stringent advance rates, discounting, and dealer reserves than those typically used for prime auto loans to mitigate the increased credit risk. As credit risk increases, advance rates on collateral decrease while interest rates, dealer paper discounts, and dealer reserves increase. In addition to lower advance rates, collateral values are typically based on the wholesale value of the car. Lenders will typically treat a new dealer with greater caution, using higher discounts and/or purchasing the dealer's higher quality paper until a database and working relationship is developed.

Servicing and Collections. Repossession is quick, generally ranging between 30 to 60 days past due and sometimes earlier. The capacity of a repossession and resale operation operated by a prime lender could easily be overwhelmed if the lender begins targeting subprime borrowers, leaving the lender unable to dispose of cars quickly. Resale methods include wholesale auction, retail lot sale, and/or maintaining a database of retail contacts. While retail sale will command a greater price, subprime lenders should consider limiting the time allocated to retail sales before sending cars to auction in order to ensure adequate cash flow and avoid excessive inventory build-up. Refinancing resales should be limited and tightly controlled, as this practice can mask losses. Lenders typically implement a system for tracking the location of the collateral.

Subprime Residential Real Estate Lending

Underwriting. To mitigate the increased risk, subprime residential real estate lenders use risk-based pricing in addition to more conservative LTV ratio requirements and cash-out restrictions than those typically used for prime mortgage loans. As the credit risk of the borrower increases, the interest rate increases and the loan-to-value ratio and cash-out limit decreases. Prudent loan-to-value ratios are an essential risk mitigant in subprime real estate lending and generally range anywhere from 85 percent to 90 percent for A- loans, to 65 percent for lower grades. High loan-to-value (HLTV) loans are generally not considered prudent in subprime lending. HLTV loans should be targeted at individuals who warrant large unsecured debt, and then only in accordance with outstanding regulatory guidance. The appraisal process takes on increased importance given the greater emphasis on collateral. Prepayment penalties are sometimes used on subprime real estate loans, where allowed by law, given that prepayment rates are generally higher and more volatile for subprime real estate loans. Government Sponsored Agencies, Fannie Mae and Freddie Mac, participate in the subprime mortgage market to a limited degree through purchases of subprime loans and guarantees of subprime securitizations.

Servicing and Collections. Collection calls begin early, generally within the first 10 days of delinquency, within the framework of existing laws. Lenders generally send written correspondence of intent to foreclosure or initiate other legal action early, often as early as 31 days delinquent. The foreclosure process is generally initiated as soon as allowed by law. Updated collateral valuations are typically obtained early in the collections process to assist in determining appropriate collection efforts. Frequent collateral inspections are often used by lenders to monitor the condition of the collateral.

Subprime Credit Card Lending

Underwriting. Subprime credit card lenders use risk-based pricing as well as tightly controlled credit limits to mitigate the increased credit risk. In addition, lenders may require full or partial collateral coverage, typically in the form of a deposit account at the institution, for the higher-risk segments of the subprime market. Initial credit lines are set at low levels, such as $300 to $1,000, and subsequent line increases are typically smaller than for prime credit card accounts. Increases in credit lines should be subject to stringent underwriting criteria similar to that required at origination.

Underwriting for subprime credit cards is typically based upon credit scores generated by sophisticated scoring models. These scoring models use a substantial number of attributes, including the frequency, severity, and recency of previous delinquencies and major derogatory items, to determine the probability of loss for a potential borrower. Subprime lenders typically target particular subprime populations through prescreening models, such as individuals who have recently emerged from bankruptcy. Review of the attributes in these models often reveals the nature of the institution's target population.

Servicing and Collections. Lenders continually monitor customer behavior and credit quality and take proactive measures to avert potential problems, such as decreasing or freezing credit lines or providing consumer counseling, before the problems become severe or in some instances before the loans become delinquent. Lenders often use

sophisticated scoring systems to assist in monitoring credit quality and frequently re-score customers. Collection calls on delinquent loans begin early, generally within the first 10 days delinquent, and sometimes as early as 1-day delinquent, within the framework of existing laws. Lenders generally send written correspondence within the first 30 days in addition to calling. Account suspensions occur early, generally within the first 45 days of delinquency or immediately upon a negative event such as refusal to pay. Accounts over 90 days past due are generally subject to account closure and charge-off. In addition, account closures based upon a borrower's action, such as repeated refusal to pay or broken promises to bring the account current within a specified time frame, may occur at any time in the collection process. Account closure practices are generally more aggressive for relatively new credit card accounts, such as those originated in the last six months.

Payday Lending

Payday lending is a particular type of subprime lending. Payday loans (also known as deferred deposit advances) are small dollar, short-term, unsecured loans that borrowers promise to repay out of their next paycheck or regular income payment (such as social security check). Payday loans are usually priced at a fixed dollar fee, which represents the finance charge. Because these loans have such short terms to maturity, the cost of borrowing, expressed as an annual percentage rate is very high.

In return for the loan, the borrower usually provides the lender with a check or debit authorization for the amount of the loan plus the fee. The check is either post-dated to the borrower's next payday or the lender agrees to defer presenting the check for payment until a future date, usually two weeks or less. When the loan is due, the lender expects to collect the loan by depositing the check or debiting the borrower's account or by having the borrower redeem the check with a cash payment. If the borrower informs the lender that he or she does not have the funds to repay the loan, the loan is often refinanced (payday lenders may use the terms "rollover," "same day advance," or "consecutive advance") through payment of an additional finance charge. If the borrower does not redeem the check in cash and the loan is not refinanced, the lender normally puts the check or debit authorization through the payment system. If the borrower's deposit account has insufficient funds, the borrower typically incurs a NSF charge on this account. If the check or the debit is returned to the lender unpaid, the lender also may impose a returned item fee plus collection charges on the loan.

Significant Risks

Credit Risk. Borrowers who obtain payday loans generally have cash flow difficulties and few, if any, lower-cost borrowing alternatives. In addition, some payday lenders perform minimal analysis of the borrower's ability to repay either at the loan's inception or upon refinancing; they may merely require a current pay stub or proof of a regular income source and evidence that the customer has a checking account. Other payday lenders use scoring models and consult nationwide databases that track bounced checks and persons with outstanding payday loans. However, payday lenders typically do not obtain or analyze information regarding the borrower's total level of indebtedness or information from the major national credit bureaus. The combination of the borrower's limited financial capacity, the unsecured nature of the credit, and the limited underwriting analysis of the borrower's ability to repay pose substantial credit risk for insured depository institutions.

Legal and Reputation Risk**.** Federal law authorizes Federal and state-chartered insured depository institutions making loans to out-of-state borrowers to "export" favorable interest rates provided under the laws of the State where the bank is located. That is, a state-chartered bank is allowed to charge interest on loans to out-of-state borrowers at rates authorized by the State where the bank is located, regardless of usury limitations imposed by the State laws of the borrower's residence. Nevertheless, institutions face increased reputation risk when they enter into certain arrangements with payday lenders, including arrangements to originate loans on terms that could not be offered directly by the payday lender.

Transaction Risk**.** Payday loans are a form of specialized lending not typically found in state nonmember institutions, and are most frequently originated by specialized nonbank firms subject to State regulation. Payday loans can be subject to high levels of transaction risk given the large volume of loans, the handling of documents, and the movement of loan funds between the institution and any third party originators. Because payday loans may be underwritten off-site, there also is the risk that agents or employees may misrepresent information about the loans or increase credit risk by failing to adhere to established underwriting guidelines.

Third-Party Risk**.** Insured depository institutions may have payday lending programs that they administer directly, using their own employees, or they may enter into arrangements with third parties. In the latter arrangements, the institution typically enters into an agreement in which the institution funds payday loans originated through the third party. These arrangements also may involve the sale to the third party of the loans or servicing rights to the loans. Institutions also may rely on the third party to

provide additional services that the bank would normally provide, including collections, advertising and soliciting applications. The existence of third party arrangements may, when not properly managed, significantly increase institutions' transaction, legal, and reputation risks.

Arrangements with third parties should be guided by written contract and approved by the institution's board. At a minimum, the arrangement should:

- Describe the duties and responsibilities of each party, including the scope of the arrangement;
- Specify that the third party will comply with all applicable laws and regulations;
- Specify which party will provide consumer compliance related disclosures;
- Authorize the institution to monitor the third party and periodically review and verify that the third party and its representatives are complying with its agreement with the institution;
- Authorize the institution and the appropriate banking agency to have access to such records of the third party and conduct onsite transaction testing and operational reviews at the third party locations as necessary or appropriate to evaluate such compliance;
- Require the third party to indemnify the institution for potential liability resulting from action of the third party with regard to the payday lending program; and
- Address customer complaints, including any responsibility for third-party forwarding and responding to such complaints.

Bank management should sufficiently monitor the third party with respect to its activities and performance. Management should dedicate sufficient staff with the necessary expertise to oversee the third party. The bank's oversight program should monitor the third party's financial condition, its controls, and the quality of its service and support, including its resolution of consumer complaints if handled by the third party. Oversight programs should be documented sufficiently to facilitate the monitoring and management of the risks associated with third-party relationships.

Concentrations

Given the risk inherent in payday lending, concentrations of credit in this line of business pose a significant safety and soundness concern. In the context payday lending, a concentration would be defined as a volume of payday loans totaling 25 percent or more of a bank's Tier 1 capital. Where concentrations of payday lending are noted, bank management should be criticized for a failure to diversify risks. Appropriate supervisory action may be necessary to address concentrations, including directing the institution to reduce its loans to an appropriate level, raising additional capital, or submitting a plan to achieve compliance.

Capital Adequacy

Payday lending is among the highest risk subsets of subprime lending, and significantly higher levels of capital than the starting point for subprime loans - one and a half to three times what is appropriate for nonsubprime assets of a similar type - should be required. Institutions that underwrite payday loans may be required to maintain as high as one hundred percent of the loans outstanding (dollar-for-dollar capital), depending on the level and volatility of risk. Risks to consider when determining capital requirements include the unsecured nature of the credit, the relative levels of risk of default, loss in the event of default, and the level of classified assets. The degree of legal or reputation risk associated with payday lending should also be considered, especially as it relates to third party agreements.

Allowance for Loan and Lease Losses

Institutions should maintain an ALLL that is adequate to absorb estimated credit losses with the payday portfolio. Although the contractual term of each payday loan may be short, institutions' methodologies for estimating credit losses on these loans should take into account the fact that many payday loans remain continuously outstanding for longer periods because of renewals and rollovers. In addition, institutions should evaluate the collectibility of accrued fees and finance charges on payday loans and employ appropriate methods to ensure that income is accurately measured.

Classifications

The Retail Classification Policy establishes general classification thresholds for consumer loans based on delinquency, but also grants examiners the discretion to classify individual retail loans that exhibit signs of credit weakness regardless of delinquency status. Examiners also may classify retail portfolios, or segments thereof, where underwriting standards are weak and present unreasonable credit risk, and may criticize account management practices that are deficient.

Most payday loans have well-defined weaknesses that jeopardize the liquidation of the debt. Weaknesses include limited or no analysis of repayment capacity and the unsecured nature of the credit. In addition, payday loan portfolios are characterized by a marked proportion of obligors whose paying capacity is questionable. As a result

of these weaknesses, payday loan portfolios should be classified Substandard.

Furthermore, payday loans that have been outstanding for extended periods of time evidence a high risk of loss. While such loans may have some recovery value, it is not practical or desirable to defer writing off these essentially worthless assets. Payday loans that are outstanding for greater than 60 days from origination generally meet the definition of Loss. In certain circumstances, earlier charge-off may be appropriate (i.e., the bank does not renew beyond the first payday and the borrower is unable to pay, the bank closes an account, etc.). The institution's policies regarding consecutive advances also should be considered when determining Loss classifications. Where the economic substance of consecutive advances is substantially similar to "rollovers" – without appropriate "cooling off" or waiting periods – examiners should treat these loans as continuous advances and classify accordingly.

When classifying payday loans, examiners should reference the Retail Classification Policy as the source document. Examiners would normally not classify loans for which the institution has documented adequate paying capacity of the obligors and/or sufficient collateral protection or credit enhancement.

Renewals/Rewrites

The Retail Classification Policy establishes guidelines for extensions, deferrals, renewals, or rewrites of closed-end accounts. Despite the short-term nature of payday loans, borrowers that request an extension, deferral, renewal, or rewrite should exhibit a renewed willingness and ability to repay the loan. Examiners should ensure that institutions adopt and adhere to the *Retail* Classification Policy standards that control the use of extensions, deferrals, renewals, or rewrites of payday loans. Under the Retail Classification Policy, institutions' standards should:

- Limit the number and frequency of extensions, deferrals, renewals, and rewrites;
- Prohibit additional advances to finance unpaid interest and fees and simultaneous loans to the same customer; and
- Ensure that comprehensive and effective risk management, reporting, and internal controls are established and maintained.

In addition to the above items, institutions also should:

- Establish appropriate "cooling off" or waiting periods between the time a payday loan is repaid and another application is made:
- Establish the maximum number of loans per customer that are allowed within one calendar year or other designated time period; and
- Provide that no more than one payday loan is outstanding with the bank at a time to any one borrower.

Accrued Fees and Finance Charges

Institutions should evaluate the collectibility of accrued fees and finance charges on payday loans because a portion of accrued interest and fees is generally not collectible. Although regulatory reporting instructions do not require payday loans to be placed on nonaccrual based on delinquency status, institutions should employ appropriate methods to ensure that income is accurately measured. Such methods may include providing loss allowances for uncollectible fees and finance charges or placing delinquent and impaired receivables on nonaccrual status. After a loan is placed on nonaccrual status, subsequent fees and finance charges imposed on the borrower would not be recognized in income and accrued, but unpaid fees and finance charges normally would be reversed from income.

EXHIBIT 5

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U. S. Department of Housing and Urban Development
Washington, D.C. 20410-8000

May 26, 1993
OFFICE OF THE ASSISTANT SECRETARY
FOR HOUSING-FEDERAL HOUSING COMMISSIONER
Mortgagee Letter 93-14
TO: All Approved Mortgagees
SUBJECT: Quality Control for Origination and Servicing
Revisions to Mortgagee Letter 89-32

The purpose of this Letter is to clarify, revise and update some of the requirements of Mortgagee Letter 89-32.

Since Mortgagee Letter 89-32 was issued in December of 1989, most mortgagees have made considerable progress towards the implementation of effective Quality Control Plans. Since that time, we have received suggestions from within the Department and from the industry concerning ways our Quality Control requirements could be improved and/or modified.

Sampling Requirement

We have received several requests for permission to use statistical sampling in the selection of loans for review. For large originators and servicers we agree this proposal is more reasonable while providing similar results. Therefore, originating mortgagees may choose to review the lesser of 10% of all loans closed on a monthly basis or a random sample that provides a 95% confidence level with 2% precision. Lenders choosing to use the random sample approach must review all loans that went into default within six months of closing in addition to the number selected for random sample. Servicers may apply the same criteria to their portfolio within the time constraints discussed later in this Mortgagee Letter. Originators and servicers may be asked by the HUD local office or the Office of Lender Activities and Land Sales Registration to explain the method they used in statistical sampling.

Lenders closing fewer than 10 loans annually must review at least one loan. If fewer than 10 loans are originated monthly, the 10% sampling requirement may be on a quarterly basis.

Loan Origination

Loan Correspondents

All HUD/FHA-approved lenders, including loan correspondents, are required to have and implement a Quality Control Plan. Sponsors of loan correspondents are required to perform quality control reviews on loans purchased from each of their correspondents; however, this is not meant to be a substitute for the correspondent's own quality control. A correspondent may enter into a contractual arrangement with its sponsor or some other entity to perform its quality control. The results of these reviews must be passed on to the management of the loan correspondent and appropriate action must be taken. (Please see "Use of Outside Firms" on page 4 of this letter.)

Selection of Loans

To improve the quality of reviews, we are providing guidelines that lenders may use in selecting loans for review. Lenders must ensure that all loan officers, underwriters, appraisers and branches are subject to review. A more thorough review will include emphasis on those individuals (including real estate agents) who are large producers, newly employed, or concentrating in soft market areas. In addition, all loans going into default within the first six months must be reviewed.

The Department's experience in reviewing loans that went into early default has shown that many of the characteristics listed below are often present. We recommend lenders use these characteristics, or any additional ones they find necessary, in identifying loans to be reviewed. Such targeting of loans will make quality control reviews more effective.

Loan Selection Guidelines

LOAN CHARACTERISTICS	MORTGAGOR CHARACTERISTICS
- Mortgagors owning other real estate	- No credit history
- 2-4 unit properties	- No or new bank accounts
- Non-occupying co-mortgagors	- Large earnest money deposit
- Sweat equity	- Large increase in bank account
- Excessive seller concessions	- Little cash remaining after closing
- Identity of interest between buyer and seller	- Housing expense increasing by 1.5 times
- New construction	- Front ratio > 29%
- Soft market areas	- Back ratio > 41%
- Rent credit	- <18 months with current employer
	- Gift letter
	- Self-employed

Credit Report

It is no longer necessary for a lender to obtain a full Residential Mortgage Credit Report (RMCR) on all loans reviewed, as previously required by 89-32. It is permissible to use a three-repository infile report. All information received from the repositories must be included in the merged report. The merge function must be limited to listing duplicate tradelines together for ease in reading the report. However, a full RMCR must be obtained on at least 10% of all loans subject to quality control, on cases in which the infile credit report reveals discrepancies, and in cases of early default.

Appraisal Review

A desk review of the property appraisal must be performed on all loans chosen for a quality control review. HUD Handbook 4000.4 REV-1,

paragraph 2-6(D), identifies the elements of that review.

Ten percent (10%) of all appraisals done by staff appraisers must be field reviewed and a sampling of appraisals done by fee personnel must be field reviewed. The size of the sample for fee appraisals is left to the lender to determine. Field reviews must be performed by the Direct Endorsement Underwriter or by review appraisers employed on a contract basis. Loans selected for field review may be included in the normal universe of loans selected for quality control.

Home Mortgage Disclosure Act

Based upon our experience in collecting information under the Home Mortgage Disclosure Act (HMDA), we have found that the information is often inaccurate. For this reason we are requiring that HMDA reporting be included in lenders' ongoing quality control. The review must ensure that HMDA reporting to HUD/FHA is being done; the information being reported is accurate; all required information is being reported; and the information is reported promptly.

Rejected Loans

A minimum of 10% of total loans rejected must be reviewed, concentrating on three particular areas. First, the reasons given for rejection must be reviewed and determined to be valid. Second, lenders must ensure that a senior staff person or officer of the company or a committee chaired by a senior staff person or officer concurred with the rejection. Finally, lenders must ensure that the requirements of the Equal Credit Opportunity Act were met and documented in each file. Where possible discrimination is noted, the lender is expected to take immediate corrective action.

Alternative Document Loans

Alternative document loans must be included in quality control reviews. The requirements for these loans are set forth in Mortgagee Letters 91-51 and 92-15.

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Loan Servicing

Sampling Requirement

Because much of servicing is computerized, we do not think it is necessary to review all areas on a monthly basis. However, we do consider the following areas of sufficient importance to warrant monthly review: servicing delinquent accounts, foreclosures, Section 235 loans, MIP billing, forbearance, claims and reporting under the Single Family Default Monitoring System (SFDMS). All other areas such as escrow analysis, adjustable rate mortgages, paid-in-full mortgages and assumptions may be reviewed on a quarterly basis.

Other Issues

The Department has found that many lenders are not submitting the correct monthly MIP to HUD or are failing to submit monthly MIP at all. It is the servicer's responsibility to ensure the correct monthly MIP is being

submitted. It is especially important to determine the correct MIP has been paid on all loans being purchased from other lenders. Therefore, your quality control reviews of escrow accounts must include a review of the Mortgage Insurance Certificate to check the Section of the Act Code and date of endorsement. This will determine whether a monthly or risk-based premium is due. This review must include a sampling of recently purchased loans.

In addition, the Department has found the location of loans to be a problem. Therefore, servicers must include a review of the Mortgage Record Change, HUD-92080, in their quality control reviews to ensure these forms are completed when loans are sold to another servicer. It is also important to review recently purchased loans to ensure the selling servicer submitted the 92080. Therefore, your quality control reviews of transfers of servicing must include a sampling of each recently purchased portfolio.

General

Use of Outside Firms

Those lenders who elect to not perform their own quality control are free to make use of outside firms that provide this service. Service provided by these firms must comply with the Department's quality control requirements, and must provide written reports to management. The lender will be responsible for ensuring these requirements are met. Lenders must carefully review and analyze the results of these quality control efforts and take prompt corrective measures when specific deficiencies are noted or procedural problems are identified. Also, any instance of mortgage finance fraud must be reported to the Department.

File Retention

The results of quality control reviews, whether performed by the lender or an outside firm, must be retained by the lender for a period of one year.

Lenders must have effective Quality Control Plans to ensure that the Direct Endorsement Program continues to be a success. The Mortgagee Review Board has imposed administrative sanctions on lenders for failing to have or implement a Quality Control Plan. Referrals may also be made to the Housing Civil Penalty Panel which may impose monetary penalties against lenders found to be in noncompliance with the Department's Quality Control requirements.

If you have any questions on this letter, please contact the Office of Lender Activities and Land Sales Registration at (202)708-1824.

Sincerely,

Nicolas P. Retsinas
Assistant Secretary For Housing
- Federal Housing Commissioner

*U.S. G.P.O.:1993-342-362:80109